



Cybex Arc Trainer® 425A
Service Manual
Cardiovascular Systems
Part Number 425A-901 A



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About This Manual

To purchase additional copies of this manual or any other Cybex manual, please do one of the following:

- contact Cybex Customer Service at 888-462-9239
- or contact Cybex Customer Service at 508-533-4300

To contact Cybex with comments about this manual send email to techpubs@cybexintl.com.

FCC Compliance Information

! WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception (which can be determined by turning the equipment off and on) the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.

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1 - Safety

IMPORTANT: Read all instructions and warnings before using the unit.

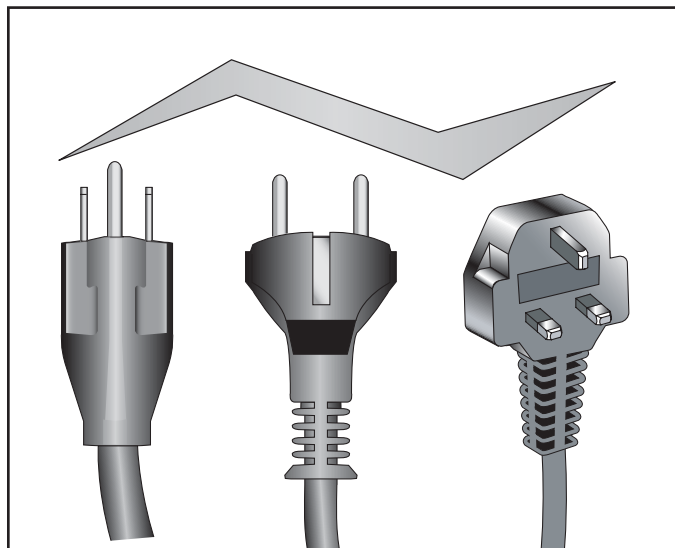
Important Voltage Information

Before plugging the power cord into an electrical outlet, verify that the voltage requirements for your area match the voltage of the unit that you have received. The power requirements for the unit include a grounded circuit, rated for one of the following: 115 VAC $\pm 5\%$, 50/60 Hz and 15 amps; or 230 VAC $\pm 10\%$, 50/60 HZ and 10 amps. See the voltage requirement decal for the exact voltage requirements of your unit.

! WARNING: Do not attempt to use this unit with a voltage adapter. Do not attempt to use this unit with an extension cord.

Grounding Instructions

This unit must be grounded. If it should malfunction or break down, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This product is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.



AW-19624
115 VAC
AW-19627
100 VAC

AW-19625
230 VAC

AW-19626
230 VAC

! DANGER: Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service provider if you are in doubt as to whether the unit is properly grounded. Seek a qualified electrician to perform any modifications to the cord or plug. Cybex is not responsible for injuries or damages as a result of cord or plug modification.

This unit is for use on a nominal 115 VAC $\pm 5\%$, 50/60 Hz and 15 amps; or 230 VAC $\pm 10\%$, 50/60 Hz and 10 amps and a grounded circuit. Make sure that the unit is connected to an outlet having the same configuration as the plug. Do not use a ground plug adapter to adapt the power cord to a non-grounded outlet.

Important Safety Instructions

(Save These Instructions)

! DANGER: To reduce the risk of electric shock, always unplug this unit from the electrical outlet immediately after using it and before cleaning it.

! WARNING: Serious injury could occur if these precautions are not observed. To reduce the risk of burns, fires, electric shock, or injury:

User Safety Precautions

- Keep children away. Teenagers and disabled must be supervised. Tenez les enfants éloignés. Les adolescents et les handicapés doivent être surveillés.
- Obtain instruction before using. Lisez les instructions avant l'utilisation.
- Wait until foot plates come to a complete stop before dismounting. Attendre l'arrêt complet des repose pieds avant de descendre.
- Obtain a medical exam before beginning any exercise program.
- Stop exercising if you feel faint, dizzy, or experience pain.
- Read and understand the Owner's Manual and all warnings posted on the unit before using.
- DO NOT wear loose or dangling clothing while using.
- Keep all body parts, towels, and the like free and clear of moving parts.
- Use the handles for support and to maintain balance.
- DO NOT use the unit if you exceed 350 lbs. (160 kg). This is the rated maximum user weight.
- Replace any warning labels if damaged, worn or illegible.
- Report any malfunctions, damage or repairs to the facility.

Facility Safety Precautions

- Make sure all user and safety precautions are observed.
- Read and understand the Owner's Manual completely before using the unit.
- Make sure all users are properly trained on how to use the equipment.
- Make sure that each machine is set up and operated on a solid level surface. Do not install equipment on an uneven surface.

- Make sure there is enough room for safe access and operation of the equipment.
- Perform regular maintenance checks on the equipment. Also pay close attention to all areas most susceptible to wear, including (but not limited to) cables, pulleys, belts and grips.
- Immediately replace worn or damaged components. If unable to immediately replace worn or damaged components then remove from service until the repair is made.
- Do not attempt repairs, electrical or mechanical. Seek qualified repair personnel when servicing. If you live in the USA, contact Cybex Customer Service at 888-462-9239. If you live outside the USA, contact Cybex Customer Service at 508-533-4300.
- Disconnect all power before servicing the unit.
- Keep a repair log of all maintenance activities.
- Use only Cybex supplied components to maintain/repair the equipment.
- Do not use attachments unless recommended for the unit by Cybex.
- Do not operate the unit if: (1) the cord is damaged; (2) the unit is not working properly or (3) if the unit has been dropped or damaged. Seek service from a qualified technician.
- Do not operate electrically powered units in damp or wet locations.
- Do not operate the unit around or where aerosol (spray) or where oxygen products are being used.
- Do not use the unit outdoors.

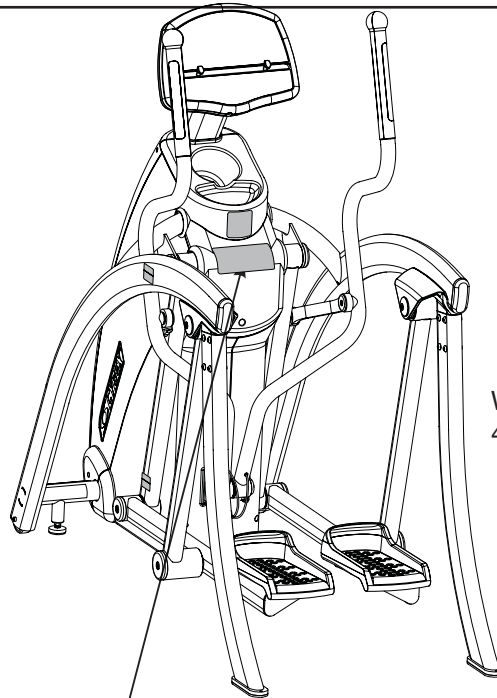
NOTE: *It is the sole responsibility of the user/owner or facility operator to ensure that regular maintenance is performed.*

Warning Decals

Carefully read and understand the following before using the unit:

NOTE: To replace any worn or damaged decals, do one of the following: Fax your orders to 508-533-5183 or contact Cybex Customer Service at 888-462-9239. If you live outside of the USA, call 508-533-4300.

Warning decals indicate a potentially hazardous situation, which, if not avoided, could result in death or serious injury. The warning decals are shown below.



Warning decal part number
425A-495-4

WARNING

**SERIOUS INJURY
COULD OCCUR IF
THESE PRECAUTIONS
ARE NOT OBSERVED**

Keep children away. Teenagers and disabled must be supervised. *Tenez les enfants éloignés. Les adolescents et les handicapés doivent être surveillés.*

Obtain instruction before using. *Lisez les instructions avant l'utilisation.*

Wait until foot plates come to a complete stop before dismounting. *Attendre l'arrêt complet des reposés pieds avant de descendre.*

Obtain a medical exam before beginning any exercise program.

Stop exercising if feeling faint, dizzy, or experiencing pain.

Keep foot plate surface clean and dry.

Read and understand the Owner's Manual and all warnings posted on the unit before using. 

DO NOT wear loose or dangling clothing while using.

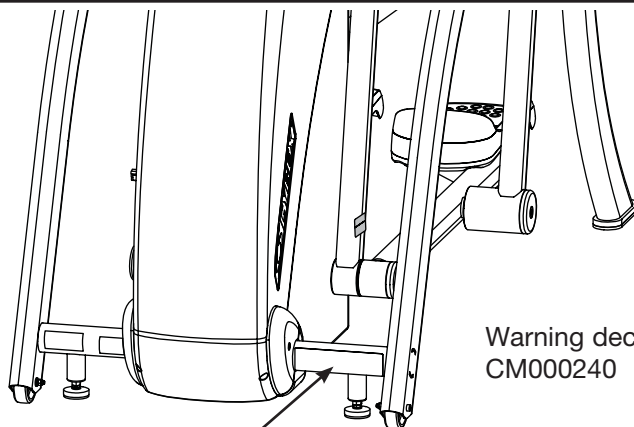
Keep all body parts, towels, and the like free and clear of moving parts.

Use handles for support and to maintain balance.

DO NOT use unit if user exceeds 350 lbs. (160 kg). This is the rated maximum user weight.

Replace any warning labels if damaged, worn or illegible.

Report any malfunctions, damage or repairs to the facility. 425A-495-4 A

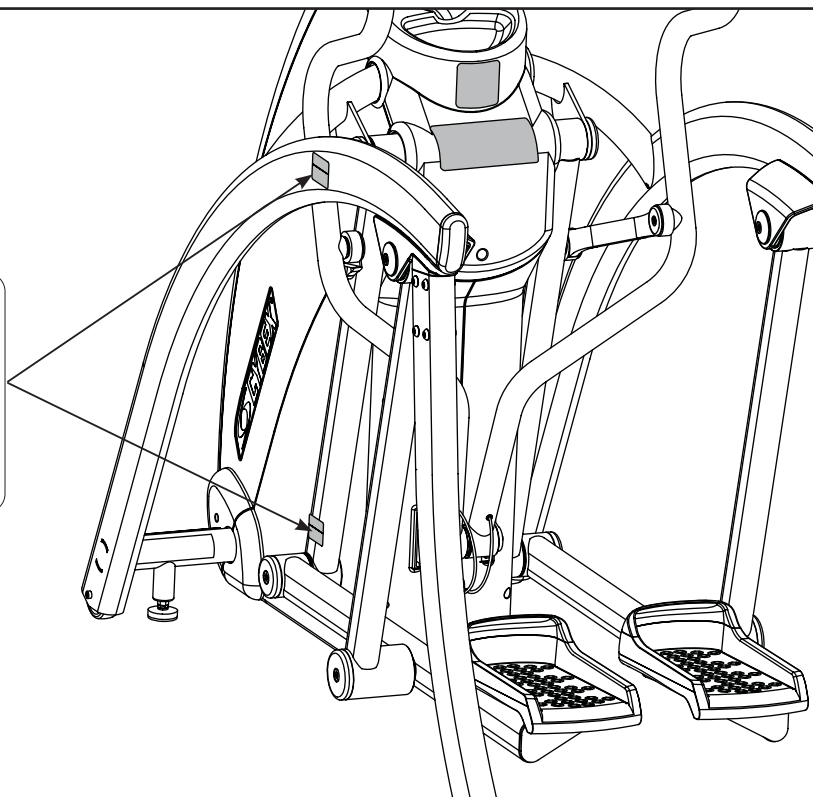


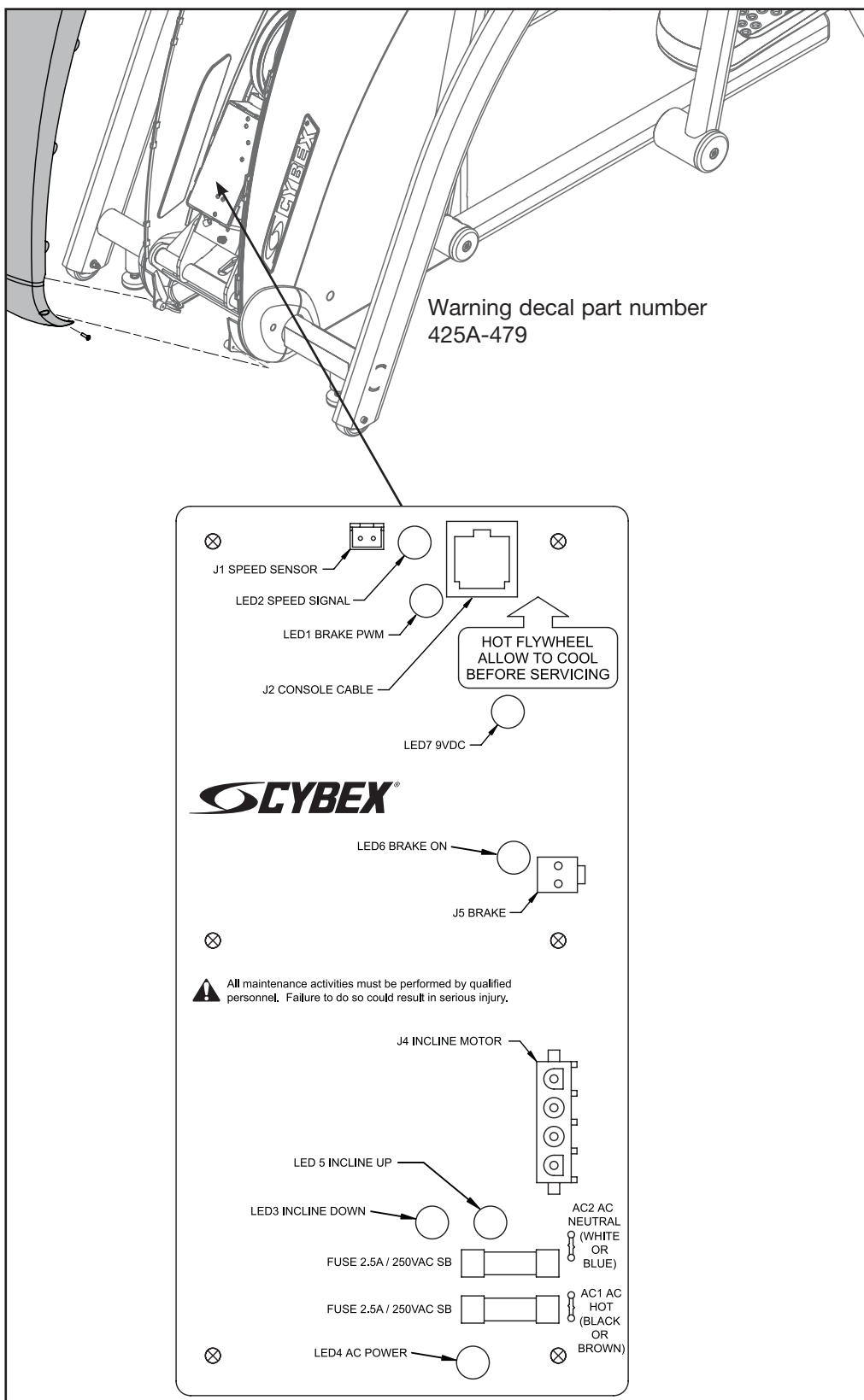
Warning decal part number
CM000240

 WARNING WARNUNG 警告 ПРЕДУПРЕЖДЕНИЕ AVERTISSEMENT ADVERTENCIA VARNING						
DISCONNECT POWER BEFORE SERVICING.	DÉBRANCHEZ L'ALIMENTATION AVANT DE FAIRE L'ENTRETIEN	VOR SERVICEAR- BEITEN NETZSTECKER ZIEHEN.	CORTE LA ENERGIA ELECTRICA ANTES DE REPARAR.	修理点検の前に 電源を 切ってください。	KOPPLA IFRÅN STRÖMMEN INNAN SERVICE UTFÖRS.	ОТКЛЮЧИТЕ ПИТАНИЕ, ПРЕЖДЕ ЧЕМ ПРИСТУПАТЬ К ОБСЛУЖИВАНИЮ.

CM000240 E

Warning decal part number
DE-17219-4 (Both Sides)





2 - Preventive Maintenance

Warnings

All warnings and cautions listed in this chapter are as follows:

! WARNING: All maintenance activities shall be performed by qualified personnel. Failure to do so could result in serious injury.

! WARNING: To prevent electrical shock, be sure the unit is unplugged from the electrical outlet before performing any cleaning or maintenance procedures.

! WARNING: Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged. Do not touch components on the lower board. A charge can remain after unplugging the power cord.

! WARNING: Disconnect the power cord before beginning this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

! WARNING: The flywheel may be hot. Wait until it cools before servicing.

Regular Maintenance Activities

! WARNING: All maintenance activities shall be performed by qualified personnel. Failure to do so could result in serious injury.

Preventive maintenance activities must be performed to maintain normal operation of your unit. keeping a log of all maintenance actions will assist you in staying current with all preventive maintenance activities. See Service Schedule located at the end of this chapter.

NOTE: Worn or damaged components shall be replaced immediately or the unit removed from service until the repair is made.

NOTE: Cybex is not responsible for performing regular inspection and maintenance actions for your unit. Instruct all personnel in equipment inspection and maintenance actions and also in accident reporting/recording.

Cleaning Your Arc Trainer 425A

! WARNING: To prevent electrical shock, be sure the unit is unplugged from the electrical outlet before performing any cleaning or maintenance procedures.

When cleaning your unit spray a mild cleaning agent, such as a water and dish soap solution, on a clean cloth first and then wipe the unit with the damp cloth.

NOTE: Do not spray cleaning solution directly on the unit. Direct spraying could cause damage to the electronics and may void the warranty.

After Each Use - Wipe up any liquid spills immediately. After each workout, use a cloth to wipe up any remaining perspiration from the handles and painted surfaces.

Be careful not to spill or get excessive moisture on the console and display overlays, as this might create an electrical hazard or cause failure of the electronics.

As Needed - Vacuum any dust or dirt that might accumulate under or around the unit. Cleaning this area should be done as often as indicated in the *Service Schedule*.

! WARNING: Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged. Do not touch components on the lower board. A charge can remain after unplugging the power cord.

To clean inside the unit, remove the four Phillips head screws securing the access cover in place. Use a vacuum attachment or hand vacuum to clean the exposed elevation assembly and remove dirt and debris off of internal components.

Use a *dry* cloth to wipe all exposed areas. Replace the access cover and secure it with the screws when finished.

Lift the rear of the unit and roll it back from its present position so as to vacuum the floor area underneath the unit. When finished, return the unit to its normal position.

Contact Heart Rate Grips - Contaminants, such as hand lotions, oils or body powder, may come off on the contact heart rate grips. These can reduce sensitivity and interfere with the heart rate signal. It is recommended that the user have clean hands when using the contact heart rate. Clean the grips using a cloth dampened with a cleaning solution containing alcohol. The grips are the only part of the unit you should use a cleaning solution containing alcohol.

Drive Belt Maintenance

There are two drive belts that may become loose, worn or cracked. See Figure 1.

Primary Belt - This is the wider of the two belts. It has grooves that keep it aligned on the large upper pulley. It is *unlikely* that the primary belt will become loose because it is a stretch-fit belt.

Secondary Belt - This is the narrower of the two belts. It has grooves that keep it aligned on the flywheel's drive pulley. It is *unlikely* that the secondary belt will become loose because it is a stretch-fit belt.

NOTE: If a belt has cracks or appears worn, it must be replaced immediately by a qualified service technician.

Tools Required

- Phillips head screwdriver

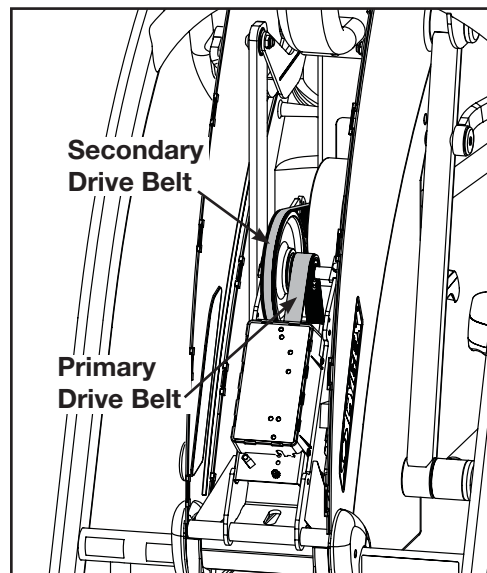


Figure 1

! WARNING: Disconnect the power cord from the wall outlet before beginning this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

1. Read and understand this Drive Belt Maintenance section thoroughly before proceeding to step 2.

2. Disconnect the external power source.

- A. Unplug the power cord from the power outlet.

3. Remove the access cover.

- A. Using a Philips screwdriver, remove the four screws securing the access cover.

- B. Remove the access cover.

! WARNING: the flywheel may be hot. Wait until it cools before servicing.

4. Check the condition of each belt.

- A. Roll each belt by to examine it condition. If a belt has cracks or appears worn, it must be replaced immediately by a qualified service technician.

5. Attach the access cover.

- A. Using a Philips head screwdriver, tighten the screws first (removed in step 3A). **NOTE:** Do not over tighten screws.

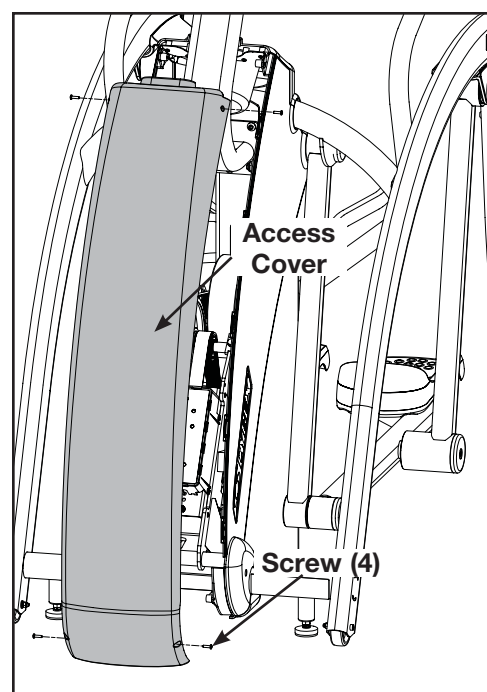


Figure 2

6. Test unit for proper operation.

Lubrication

The Arc Trainer 425A is designed with no-maintenance parts. Although there are grease fittings on the pillow blocks, re-lubrication of the bearings is not required.

Elevation Motor Lubrication - In time the elevation motor pivot points may develop a squeak. If a squeak is present, the unit will need to be serviced by a qualified service technician.

Environment

Static Electricity - Depending upon where you live, you may experience dry air, causing a common experience of static electricity. This may be especially true in the winter time. You may notice a static build-up just by walking across a carpet and then touching a metal object. The same can hold true while working out on your unit. You may experience a shock due to the build-up of static electricity on your body and the discharge path of the unit. If you experience this type of situation, you may want to increase the humidity to a comfortable level through the use of a humidifier.

Humidity - The unit is designed to function normally in an environment with a relative humidity range of 30% to 75%.

NOTE: *Do not install or use the unit in an area of high humidity, such as in the vicinity of a steam room, sauna, indoor pool or outdoors. Exposure to extensive water vapor, chlorine and/or bromine could adversely affect the electronics as well as other parts of the machine.*

Temperature - The unit is designed to function normally in an environment with an ambient temperature range of 50° F (10° C) to 104° F (40° C) degrees.

Storage

Humidity - The unit can be shipped and stored in an environment with a relative humidity range of 10% to 90%.

NOTE: *Do not store the unit in an area of high humidity, such as in the vicinity of a steam room, sauna, indoor pool or outdoors. Exposure to extensive water vapor, chlorine and/or bromine could adversely affect the electronics as well as other parts of the machine.*

Temperature - The unit can be shipped and stored in an environment with an ambient temperature range of 32° F (0° C) and 140° F (60° C) degrees.

3 - Customer Service

Contacting Service

Hours of phone service are Monday through Friday from 8:30 a.m. to 6:00 p.m. Eastern Standard Time.

For Cybex customers living in the USA, contact Cybex Customer Service at **888-462-9239**.

For Cybex customers living outside the USA, contact Cybex Customer Service at **508-533-4300** or fax **508-533-5183**.

Find information on the web at www.cybexinternational.com or by e-mail at techhelp@cybexintl.com.

Serial Number and Voltage

Your serial number and voltage can be found on the front of the unit. See Figure 1.

For your convenience record your serial number and voltage below so that you will have it ready if you call Cybex Customer Service.

Serial Number _____ Voltage _____

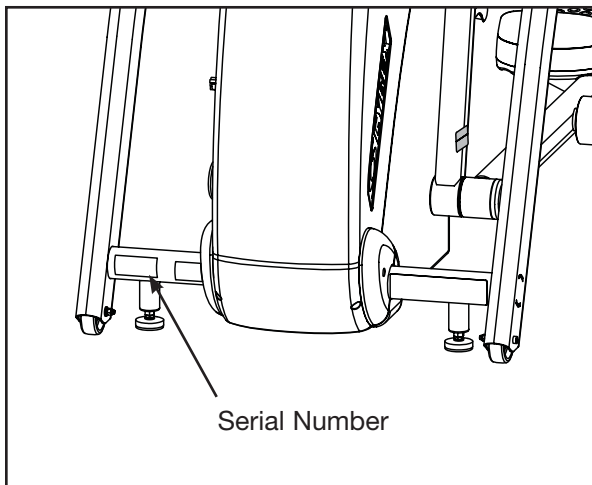


Figure 1

Return Material Authorization (RMA)

The Return Material Authorization (RMA) system outlines the procedures to follow when returning material for replacement, repair, or credit. The system assures that returned materials are properly handled and analyzed. Follow the following procedures carefully.

Contact your authorized Cybex dealer on all warranty-related matters. Your local Cybex dealer will request an RMA from Cybex, if applicable. Under no circumstances will defective parts or equipment be accepted by Cybex without proper RMA and an Automated Return Service (ARS) label.

1. Call the Customer Service hotline listed on Page 6-1 for the return of any item that is defective.
2. Provide the technician with a detailed description of the problem you are having or the defect in the item you wish to return.
3. Provide the model and serial number. *The serial number is located on the front of the unit as shown in Figure 1.* The serial number begins with a letter, for example: R09-101331100.
4. At Cybex's discretion, the technician may request that you return the problem part(s) to Cybex for evaluation and repair or replacement. The technician will assign you an RMA number and will send you an ARS label. The ARS label and RMA number must be clearly displayed on the outside of the package that contains the item(s) to be returned. Include a description of the problem, the serial number of the unit and the name and address of the owner in the package along with the part(s).
5. Forward the package through UPS to Cybex.
Attn: Customer Service Department
Cybex International, Inc.
1975 24th Ave SW
Owatonna MN 55060, USA

NOTE: Merchandise returned without an RMA number on the outside of the package or shipments sent C.O.D. will not be accepted by the Cybex receiving department.

Damaged Parts

Materials damaged in shipment should not be returned for credit. Shipping damages are the responsibility of the carrier (UPS, Federal Express, trucking companies, etc.).

Apparent Damage - Upon receipt of your shipment, check all boxes carefully. Any damage seen with a visual check must be noted on the freight bill and signed by the carrier's agent. Failure to do so will result in the carrier's refusal to honor your damage claim. The carrier will provide you with the required forms for filing such claims.

Concealed Damage - Damage not seen with a visual check upon receipt of a shipment but noticed later must be reported to the carrier as soon as possible. Upon discovery of the damage, a written or phone request to the carrier asking them to perform an inspection of the materials must be made within ten days of the date of delivery. Keep all shipping containers and packing materials: they will be needed as part of the inspection process. The carrier will provide you with an inspection report and the necessary forms for filing a concealed damage claim. Concealed damage is the carrier's responsibility.

Ordering Parts

Fax orders to **508-533-5183**. To speak with a customer service representative, call **888-462-9239** (for customers living within the USA) or **508-533-4300** (for customers outside the USA).



**Cybex will void warranty if
non-Cybex
replacement parts are used.**

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4 - Service

The first part of this chapter contains BOMs (Bills of Material) and corresponding exploded views.

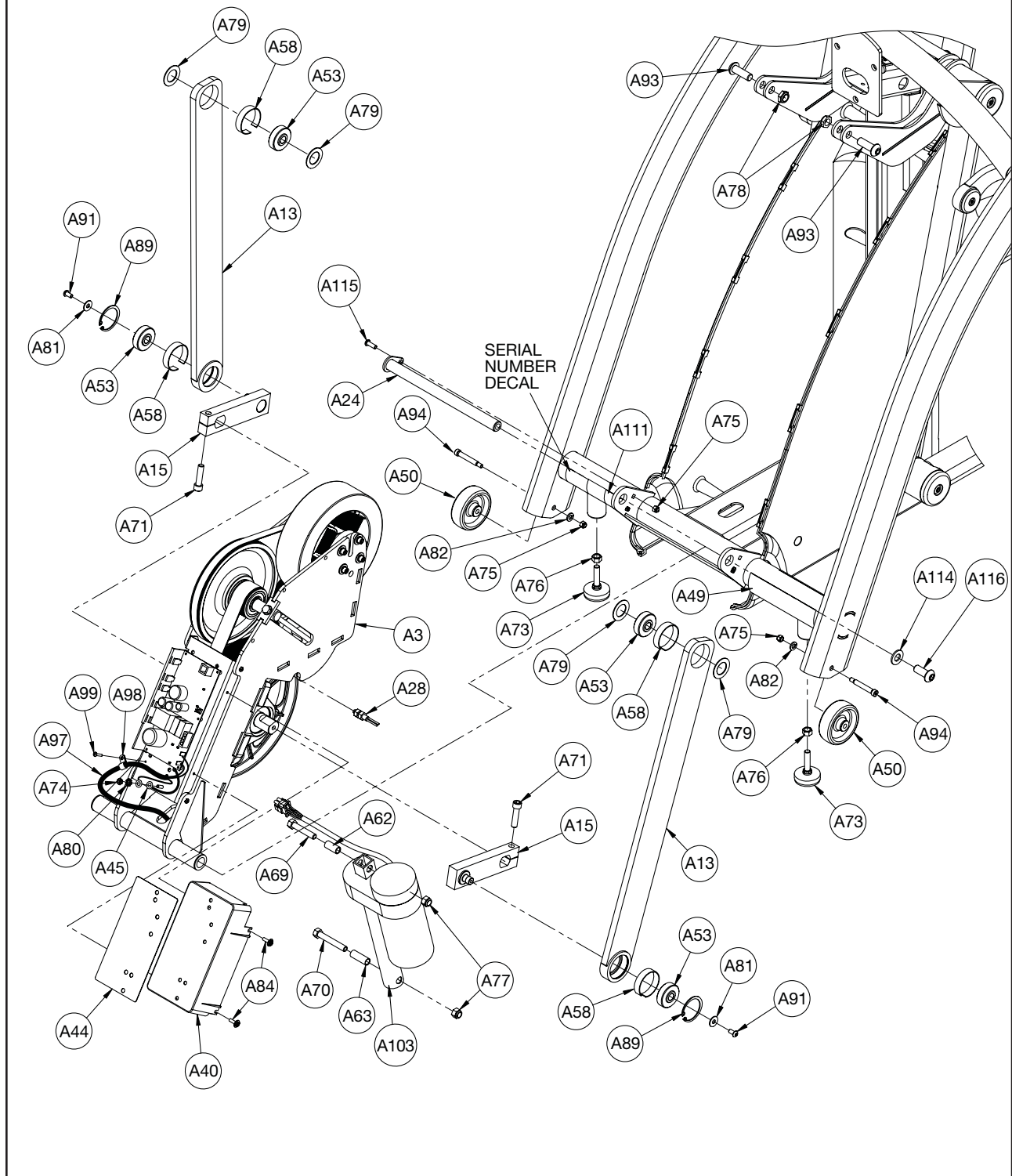
The second part of this chapter contains kit instruction sheets currently available for service kits.

Cybox Arc Trainer 425A Service Manual

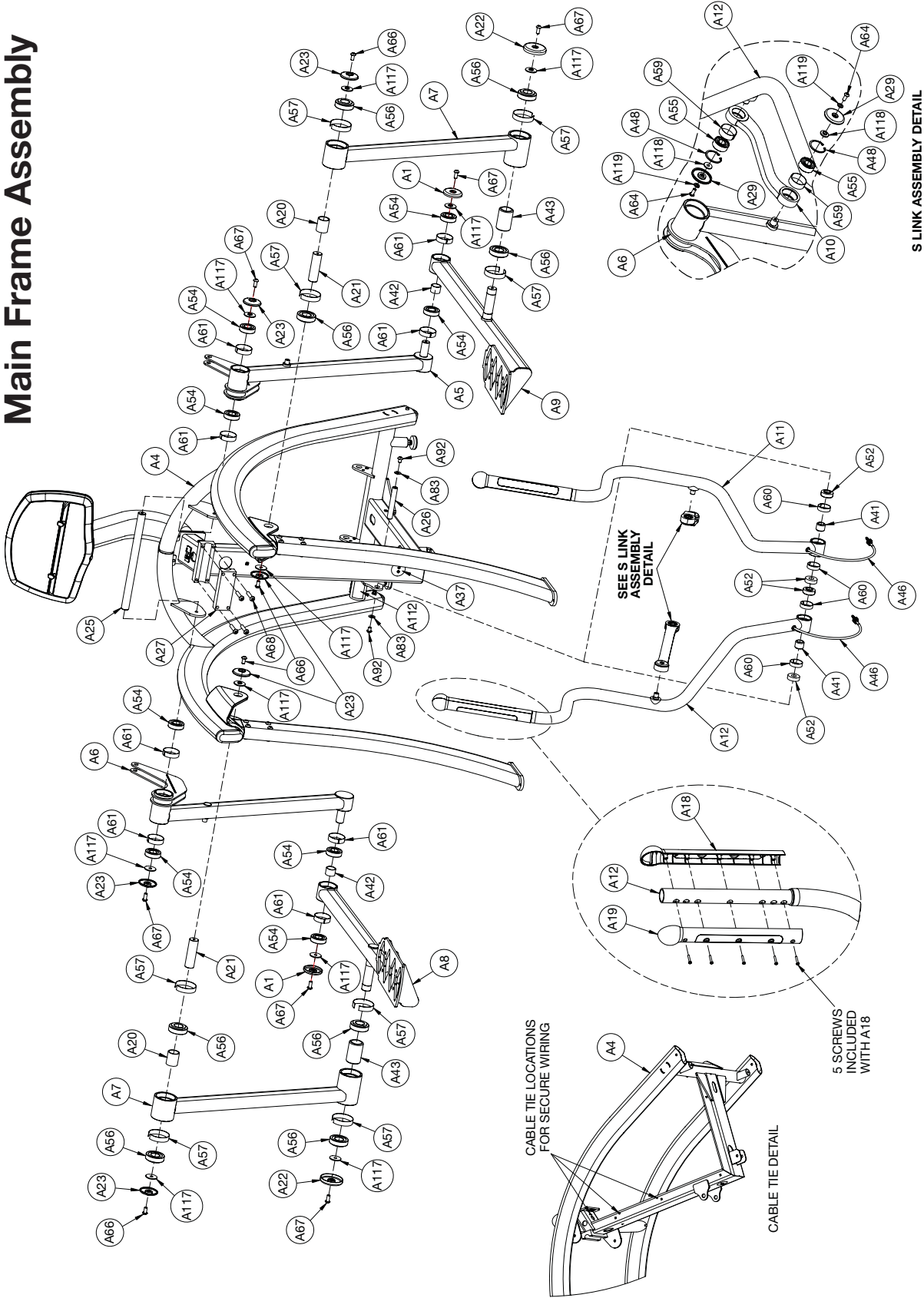
Main Assembly

ITEM	QTY	PART NO.	DESCRIPTION	ITEM	QTY	PART NO.	DESCRIPTION
A1	2	425A-483	END CAP	A63	1	FT-17243	SLEEVE, ELEVATION MOUNTING, BOTTOM
A2	2	12090-322	FOOT PAD	A64	4	HC620414	BHSCS .250-20 X .625
A3	1	425A-101	DRIVE FRAME ASSEMBLY	A65			REMOVED 3/07
A4	1	425A-200	MAIN FRAME	A66	23	HC700415	BHSCS .375-16 X .75
A5	1	425A-201	FRONT LEG RH	A67	6	HC700416	BHSCS .375-16 X .875
A6	1	425A-202	FRONT LEG LH	A68	4	HC700426	BHSCS .375-16 X 2.00
A7	2	425A-203	REAR LEG	A69	1	HC701226	BOLT, HHCS .375-16 x 2.0
A8	1	425A-204	FOOT BAR LH	A70	1	HC701230	SCREW, HHCS .375-16 x 2.50
A9	1	425A-205	FOOT BAR RH	A71	2	HC702822	SHCS .375-16 X 1.50
A10	2	425A-207	S LINK	A72	11	HF540200	GROMMET, NYLON
A11	1	425A-208	INPUT HANDLE RH	A73	2	HG700022	LEVELING GLIDE, .375-16
A12	1	425A-209	INPUT HANDLE LH	A74	1	HN586300	NUT, K-LOCK 10-32 ZINC PLATED
A13	2	425A-210	DRIVE LINK	A75	3	HN624901	LOCKNUT, .250-20 NYLON BLK ZN
A14	2	425A-212	REAR LEG	A76	2	HN704000	HEX NUT .375-16
A15	2	425A-319	ASSY, CRANK ARM	A77	2	HN704902	LOCKNUT, .375-16 NYLON
A16	2	425A-359	FOOT PLATE	A78	2	HN784901	NYLON LOCKNUT .500-13 THIN
A17	2	425A-360	TOE CAP	A79	4	HS008006	WASHER NYL .908 1.500 .050
A18	2	425A-378	GRIP, CHR, FRONT	A80	1	HS047300	LOCKWASHER, EXTERNAL NO. 10
A19	2	425A-379	GRIP, CHR, BACK	A81	2	HS307600	WASHER SAE .250
A20	2	425A-487	TUBE, SPACER	A82	2	HS328300	LOCKWASHER SPLIT .312
A21	2	425A-444	PIN, PIVOT	A83	2	HS347600	WASHER, SAE .375
A22	2	425A-484	END CAP	A84	2	HT102214	PHIL, HEX, WASHER HD, TYPE 23, 10-24
A23	6	425A-485	END CAP				REMOVED 3/07
A24	1	425A-216	SHAFT, DRIVE PIVOT	A85			
A25	1	425A-448	PIN, PIVOT	A86	19	HT542514	PN HD PHIL SC # 8 X .625 BLK
A26	1	425A-449	PIVOT SHAFT	A87	8	HT552512	PAN HD PHIL HD SELF TAPPING, 8-16 x .50 TYPE WB
A27	1	425A-450	BLOCK, CLAMP				
A28	1	425A-451	MAGNETIC SENSOR	A88	8	HT582510	TAP SC NO 10 X .375 PN HD PHIL
A29	4	425A-482	END CAP	A89	2	HX-17143	RING RETAINING, INTERNAL, .500-168
A30	1	425A-457	BRACKET COVER	A90			REMOVED 3/07
A31	1	425A-458	COVER, TOP	A91	2	JC620412	BHSCS .250-20 X .50
A32	1	425A-459	COVER FRONT	A92	2	JC700412	BHSCS .375-16 X .50
A33	1	425A-460	COVER SIDE UPPER RIGHT	A93	2	JC780422	BHSCS .500-13 X 1.50
A34	1	425A-461	COVER SIDE LOWER RIGHT	A94	2	JD623324	BOLT, SHOULDER .312 x 1.75 .250-20 UNC
A35	1	425A-462	COVER SIDE UPPER LEFT	A95	2	PP130004	INSERT, DOMED PLASTIC
A36	1	425A-463	COVER SIDE LOWER LEFT	A96	1	YD000027	TAPE, DOUBLE BACK .75 X 2.00
A37	1	425A-465	INSERT, PLASTIC 1.75 OD	A97	1	AW-19624	POWER CORD 115V
A38	4	425A-468	RETAINER	A97	1	AW-19625	POWER CORD 230V
A39	2	425A-469	DECAL, CYBEX	A97	1	AW-19626	POWER CORD 230V
A40	1	425A-470	COVER, LCB	A97	1	AW-19627	POWER CORD 100V
A41	2	425A-489	SPACER	A98	1	HX-19841	CLAMP, STRAIN RELIEF .250 ID
A42	2	425A-488	SPACER	A98	1	HX-19842	CLAMP, STRAIN RELIEF .313 ID
A43	2	425A-486	SPACER	A99	1	HT552510	SCREW
A44	1	425A-479	DECAL, LCB COVER	A100	1	425A-206	CONSOLE MOUNT
A45	1	610A-104	CABLE,CHR CHASSIS GND	A101	4	HS307400	LOCKWASHER INT TOOTH .250 SS
A46	2	AW-19615	CABLE, 425A, CHR GRIP	A102	4	HX620420	BHSCS .250-20 X 1.250
A47	1	AW-19616	HARNESS, 425A CHR, FRAME	A103	1	MR-19609	MOTER EVEVATION 115V
A48	4	BR030225	RETAINING RING 1.438 INTERNAL	A103	1	MR-19610	MOTOR ELEVATION 230V
A49	1	CM000240	DECAL, DISCONNECT POWER 7 LANGUAGES	A104	1	425A-395	WARRANTY SHEET (NOT SHOWN)
				A105	1	425A-396	INSTALLATION POSTER (NOT SHOWN)
A50	2	CW-17231	WHEEL, TENSIONER	A106	1	5425A-4	OWNER'S MANUAL (NOT SHOWN)
A51	1	EC-19978	SENSOR, WHR AND CHR COMBO	A107	1	425A-495*	WARNING DECAL
A52	4	FB030232	BEARING, RADIAL 17 mm EXTENDED RACE	A108	1	DE-17218*	HEART RATE ZONE DECAL
				A109	4	DE-17219*	CAUTION DECAL
A53	4	FB030244	BEARING, RADIAL BALL .50 ID X 1.688 OD	A110	1	DE-17266	UL DOMESTIC DECAL (NOT SHOWN)
A54	8	FB030247	BEARING, RADIAL 25MM EXTENDED RACE	A111	1	425A-494	ETL LABEL
				A111	1	CM000242	CE DECAL
A55	4	FB030248	BEARING, SPHERICAL 15MM	A112	1	CM000241	FCC DECAL
A56	8	FB030253	BEARING, RADIAL 30 MM EXTENDED RACE	A113	1	HN625200	REMOVED 4/07
				A114	1	HS387700	WASHER, SAE .500
A57	8	FC030003	TOLERANCE RING	A115	1	JC780420	BHSCS .250-20 X .75
A58	4	FC030004	TOLERANCE RING 42 (1.653) ID	A116	1	HC622815	BHSCS .500-13 X 1.25
A59	4	FC030005	TOLERANCE RING 1.378 ID	A117	10	425A-481	SPACER
A60	4	FC030006	TOLERANCE RING 1.575 ID	A118	4	600A-311	SPACER
A61	8	FC030007	TOLERANCE RING 2.047 ID	A119	4	HS307601	WASHER, FLAT .281ID X .500OD X .062
A62	1	FT-17242	SLEEVE, ELEVATION MOUNTING, TOP	A120	1	600A-362	BIO SIG PATENT LABEL
				A121	1	630A-351	WEEE SYMBOL DECAL

Main Frame Assembly



Main Frame Assembly

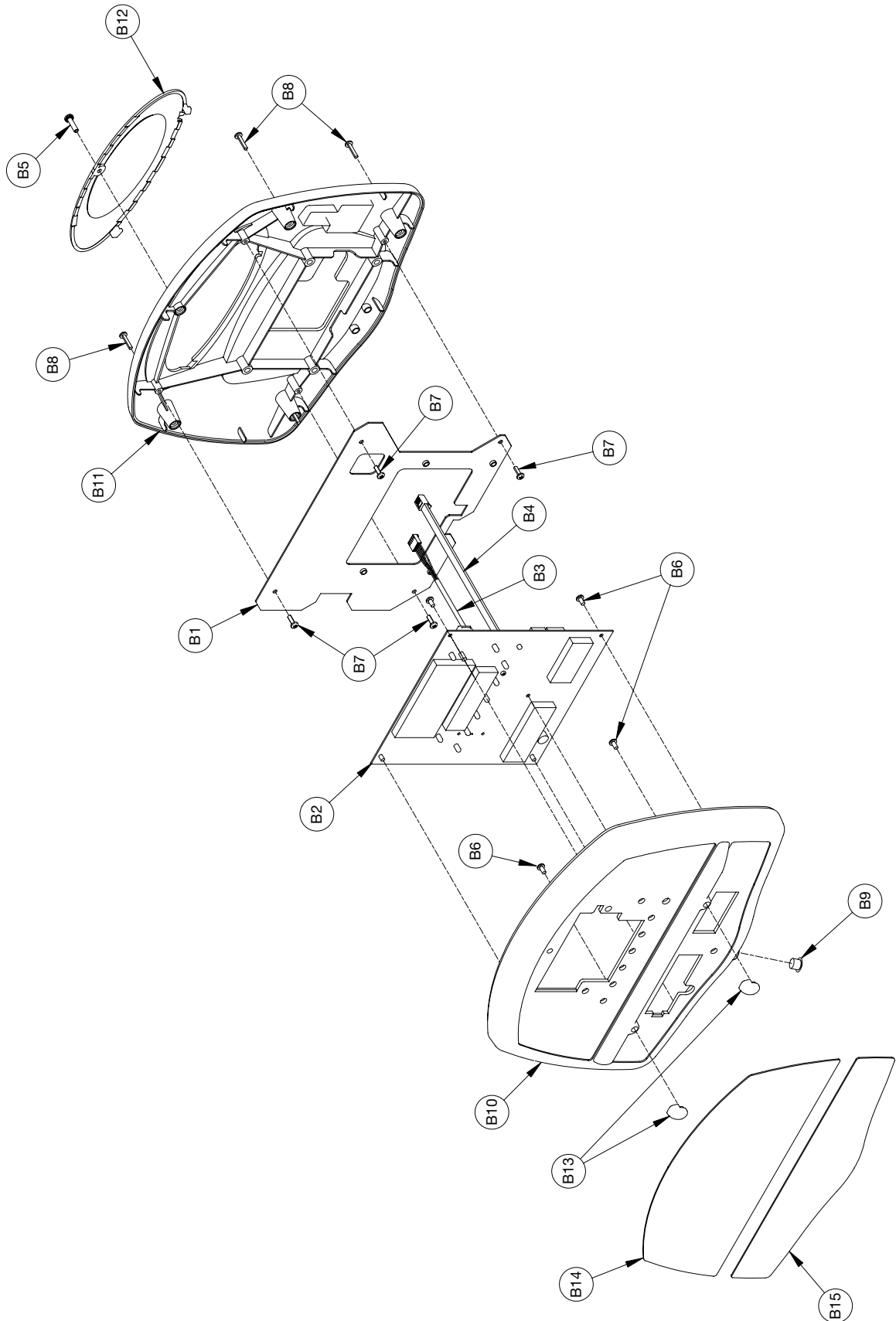




Console Assembly

ITEM	QTY	PART NO.	DESCRIPTION
B1	1	610A-396	PLATE, CONSOLE MOUNTING
B2	1	AD-19618-Q	PCA, 425A MAIN DISPLAY
B3	1	AW-19617	HARNESS, 425A HR CONSOLE
B4	1	AW-19619	CABLE, 425A CONSOLE RJ45
B5	1	HJ582515	SCREW, SEMS, 10-32 X .75 PHIL PAN, BLK ZINC
B6	7	HT552509	SCREW, TAP 8-16 x .31 PLASTITE
B7	4	HT552512	PAN HD PHIL HD SELF TAPPING, 8-16 x .50 TYPE WB
B8	4	HT552515	PAN HD PHIL HD SELF TAPPING, 8-16 x .75, TYPE WB BLACK
B9	1	PP080207	INSERT, PLASTIC .437 DIA 11 GA
B10	1	PP620003	CONSOLE, FRONT PLASTIC
B11	1	PP620004	CONSOLE, REAR PLASTIC
B12	1	PP620005	COVER, CONSOLE BATTERY DOOR
B13	2	PP620006	TAB, BOOK HOLDER
B14	1	SW-19622-X*	MEMBRANE, 425A TOP
B15	1	SW-19623-X*	MEMBRANE, 425A BTM W/O AV
B15	1	SW-19621-X*	MEMBRANE, 425A BTM W AV

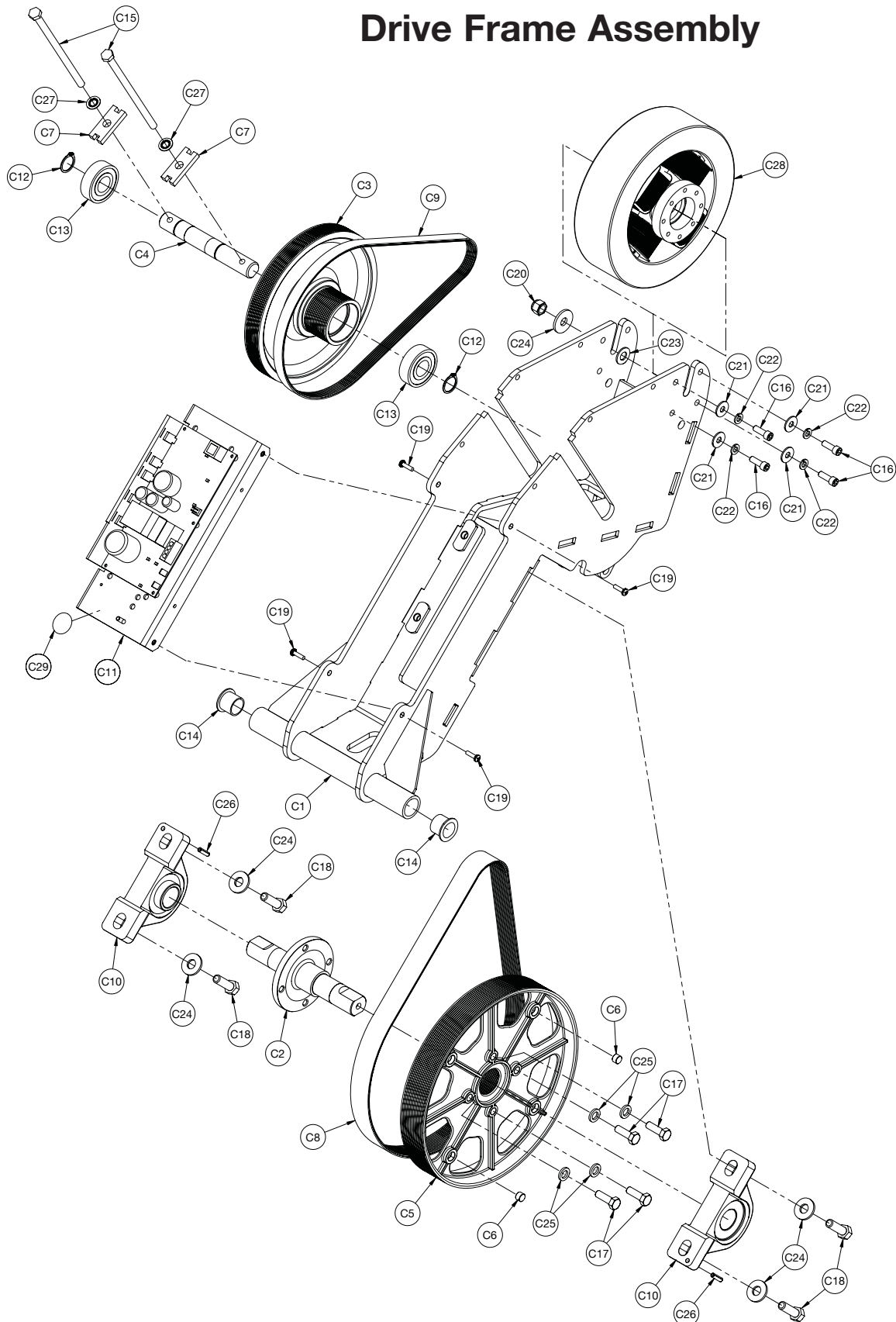
Console Assembly



Drive Frame Assembly

ITEM	QTY	PART NO.	DESCRIPTION
C1	1	425A-211	W BOX
C2	1	425A-313	SHAFT
C3	1	425A-320	PULLEY, SECONDARY DRIVE
C4	1	425A-322	SHAFT, SECONDARY DRIVE
C5	1	425A-337	PULLEY, PRIMARY DRIVE
C6	2	425A-364	MAGNET
C7	2	425A-373	ADJUSTER, BELT TENSION
C8	1	425A-455	BELT, PRIMARY DRIVE
C9	1	425A-456	BELT, SECONDARY DRIVE
C10	2	600A-340	BEARING, 1.00 INCH PILLOW BLOCK
C11	1	AD-19612	PCA, 425A CONTROLLER
C12	2	BR030227	RETAINING RING, 20 MM EXTERNAL
C13	2	FB030254	RADIAL BEARING 20 MM
C14	2	FB130212	BUSHING, FLANGE .75 ID x .875 OD x .75 LG
C15	2	HC321258	SCREW, HEX HEAD CAP .312-18 x 6.000
C16	4	HC622815	SHCS .250-20 X .750
C17	4	HC661217	HX HD CAP SCREW .312-18 X 1.00
C18	4	HC701220	BOLT, HHCS .375-16 x 1.25
C19	4	HJ582515	SCREW, SEMS 10-32 x .75 PHIL PAN, BLACK ZINC
C20	1	HN704901	LOCKNUT, .375-16 NYLON
C21	4	HS307600	WASHER SAE .250
C22	4	HS308300	SPLIT LOCKWASHER .250
C23	2	HS347600	WASHER, SAE .375
C24	4	HS347700	WASHER, USS .375
C25	4	HS760100	SPRING RETAINING WASHER
C26	2	HX-17023	PIN, SPRING .1875 x .75 LG, TYPE 420
C27	2	JS337400	LOCKWASHER INT TOOTH .312
C28	1	MR-19541	ASSEMBLY, ECB (SINGLE ROW BEARING)
C29	1	CM000237	LABEL, SAFETY GROUND

Drive Frame Assembly



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Arc Trainer 425A Kits

Description	Kit#
Drive Link	425AK002
Rear Leg	425AK003
Front Right Leg	425AK004
Front Left Leg	425AK005
Right Input Handle	425AK006
Left Input Handle	425AK007
Right Foot Bar	425AK008
Left Foot Bar	425AK009
Right Upper Side Cover	425AK010
Left Upper Side Cover	425AK011
Top Cover	425AK012
S-Link	425AK013
Side Handle	425AK015
AV Kit	425AK016
Plastic Insert	425AK017
AV Kit	425AK044
Shaft Replacement	425AK045
AV Kit	425AK046

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Arc Trainer® 425A Drive Link

Kit No. 425AK002

Installation Instructions

NOTE: This instruction sheet describes how to replace the Drive Link in the Arc Trainer 425A.

Tools Required

- Phillips screwdriver
- 3/4" Open end wrench
- 5/32" Allen wrench
- 5/16" Allen wrench

1. Read and understand all instructions thoroughly before installing this kit.

2. Verify kit contents. See Figure 1.

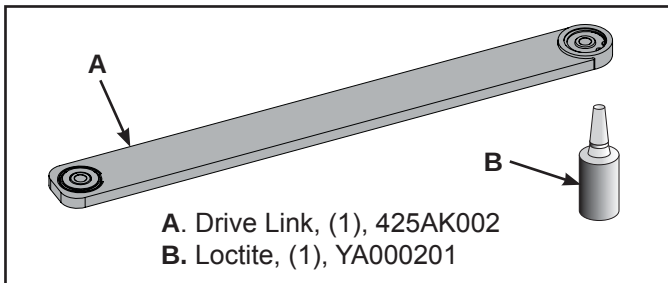


Figure 1

3. Disconnect the external power source.

A. Unplug the power cord from the power outlet.

! WARNING: Disconnect the power cord before continuing this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

4. Remove the front cover.

A. Using a Phillips screwdriver, remove the four screws securing the front cover. See Figure 2.

B. Remove front cover.

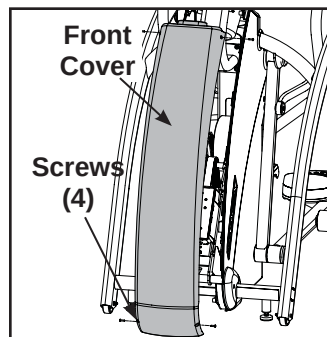


Figure 2

5. Remove top cover.

A. Using a Phillips screwdriver, remove the screw securing the top cover. See Figure 3.

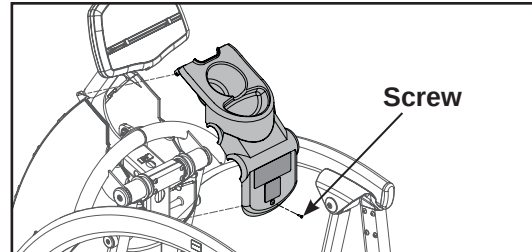


Figure 3

B. Remove top cover.

6. Remove upper side cover.

A. Using a Phillips screwdriver, remove the screw securing the upper side cover. See Figure 4.

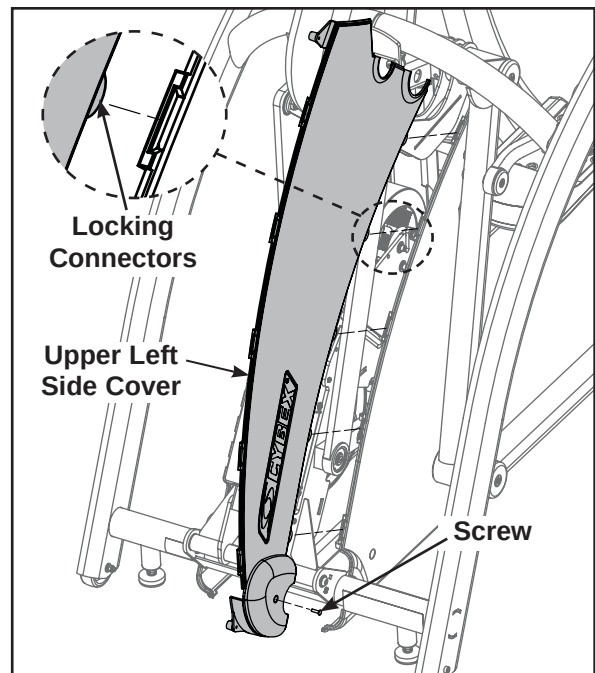


Figure 4

B. Remove upper side cover.



7. Remove the proper drive link.

- A. Using a 5/16" Allen wrench and 3/4" open end wrench, remove the BHSCS securing drive link to the front leg. Remove the drive link and two nylon washers. See Figure 5.

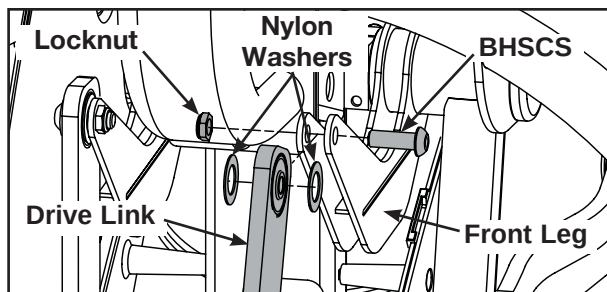


Figure 5

- B. Using a 5/32" Allen wrench, remove the BHSCS securing drive link to the crank arm. See Figure 6.

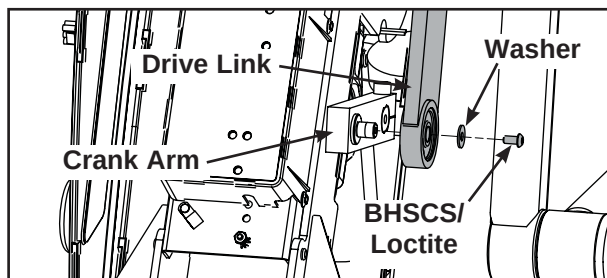


Figure 6

8. Install the new drive link.

- A. Attach the new drive link (A) to the crank arm. See Figure 6.
- B. Place a drop of loctite (B) on the BHSCS and another drop inside the shaft where the BHSCS will be tighten into.
- C. Using a 5/32" Allen wrench, install the BHSCS/loctite and washer as shown in Figure 6. Tighten securely.
- D. Place a nylon washer removed in step 7A on each side of the new drive link (A), then place in position on the front leg. See Figure 5.

NOTE: Do not let nylon washer slide down over the bearing face while tightening. See Figure 7.

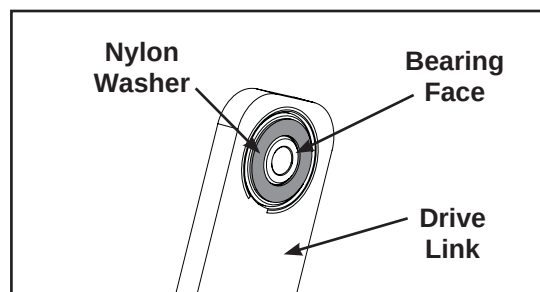


Figure 7

- E. Install the BHSCS and lock nut removed in step 7A.
- F. Using a 5/16" Allen wrench and 3/4" open end wrench, tighten the BHSCS and locknut securely.

9. Attach the upper side cover.

- A. Place the upper side cover in position. See Figure 4.
- B. Using a Phillips screwdriver, tighten the screw securing the upper side cover.

10. Attach the top cover.

- A. Place the top cover in position. See Figure 3.
- B. Using a Phillips screwdriver, tighten the screw securing the top cover.

11. Attach the front cover.

- A. Place the front cover in position. See Figure 2.
- B. Using a Phillips screwdriver, tighten the four screws securing the front cover.

12. Test unit for proper operation.

Arc Trainer® 425A Rear Leg

Kit No. 425AK003

Installation Instructions

NOTE: This instruction sheet describes how to replace the Rear Leg in the Arc Trainer 425A.

Tools Required

- Phillips screwdriver
- 7/32" Allen wrench (2)
- Rubber mallet and punch (optional)
- Grease

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify kit contents. See Figure 1.

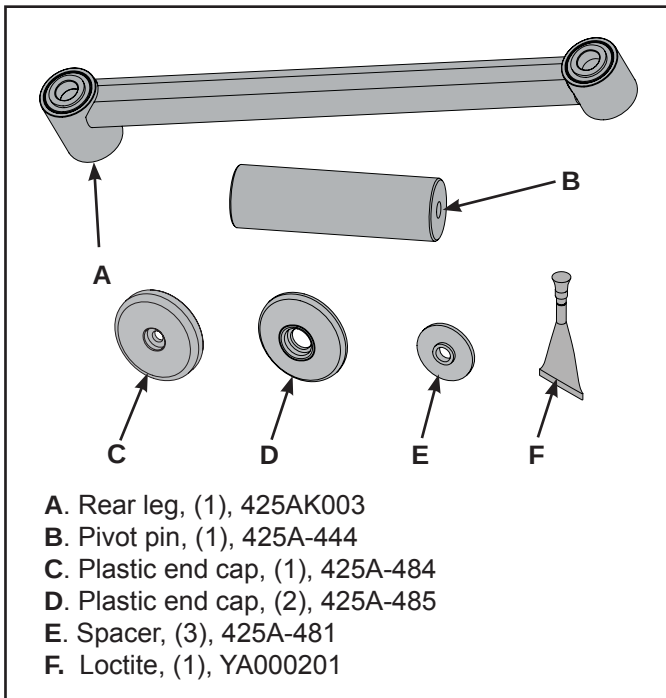


Figure 1

3. Remove BHSCS, spacer and end cap.

- A. Using a 7/32" Allen wrench, remove the BHSCS (Button Head Socket Cap Screw), spacer and end cap securing the rear leg to the foot bar. See Figure 2.

NOTE: Older units have an aluminum end cap and do not have a spacer.

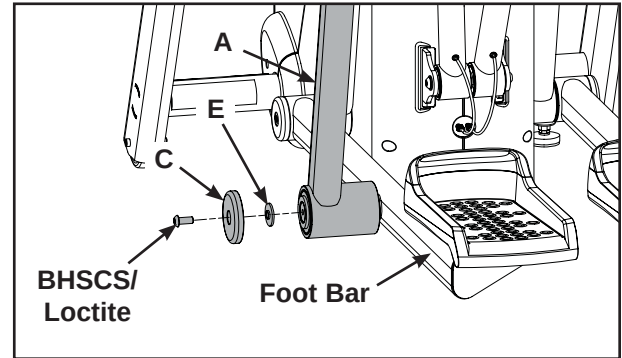


Figure 2

4. Remove rear leg.

- A. Using two 7/32" Allen wrenches, remove the inside BHSCS, spacer and plastic end cap. While holding the rear leg, remove the pivot pin. **NOTE:** You may need a rubber mallet and punch to remove the pivot pin.

NOTE: Older units have an aluminum end cap and do not have a spacer.

- B. Carefully lower the rear leg. See Figure 3.

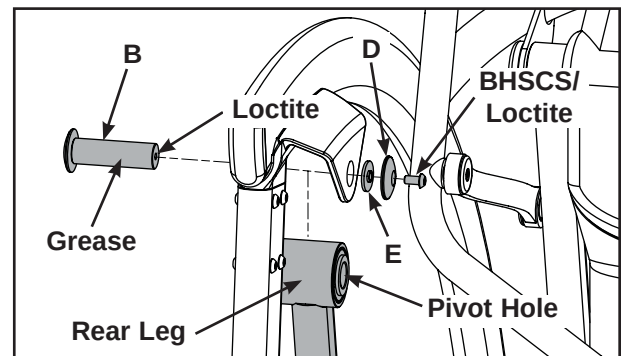


Figure 3

- C. Remove the rear leg from the foot bar. See Figure 4.



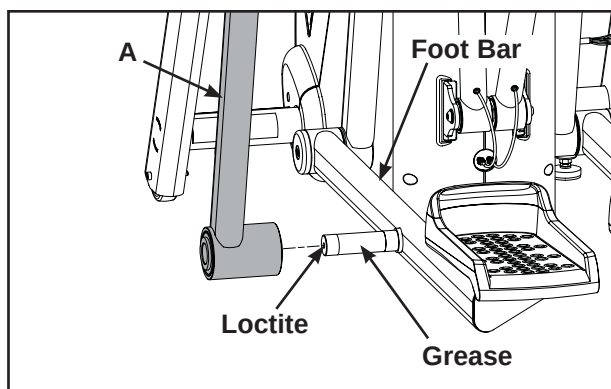


Figure 4

5. Install new rear leg on the foot bar.

- A. Place grease on the outside of the foot bar shaft. See Figure 4.
- B. Place the new rear leg (A) into position on the foot bar.

6. Assemble pivot pin.

- A. Place a drop of loctite (F) on the two BHSCS removed in step 4A and another drop inside the new pivot pin (B) shaft where the two BHSCS will be tightened.
- B. Install one BHSCS/loctite, a new spacer (E) and new plastic end cap (D) to one side of the new pivot pin (B). See Figure 5.
NOTE: *Instead of installing the new end cap and spacer, you can install the old aluminum end cap to the new pivot pin.*

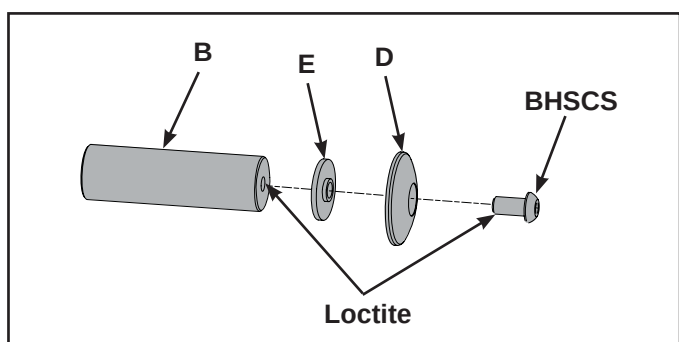


Figure 5

7. Install new rear leg on frame.

- A. Place grease on the new pivot pin assembled in step 6B. See Figure 3.
- B. Place the new rear leg (A) so that the pivot hole aligns with the holes in the frame. See Figure 3.
- C. Insert new pivot pin assembly. See Figure 3.
- D. Install the other BHSCS/loctite, new spacer (E) and new plastic end cap (D) to the pivot pin (B) and tighten using two 7/32" Allen wrenches as shown in Figure 3. **NOTE:** *Instead of installing these new parts, you can install the old aluminum end cap.*

8. Install the BHSCS/loctite, new spacer and new end cap.

- A. Place a drop of loctite (F) on the BHSCS (removed in step 3A) and another drop inside the shaft into where the BHSCS will be tightened.
- B. Using a 7/32" Allen wrench, reinstall the BHSCS/loctite (removed in step 3A), new spacer (E) and new end cap (C). See Figure 2. **NOTE:** *Instead of installing these new parts, you can reinstall the old aluminum end cap.*
- C. Tighten securely.

9. Test for proper operation.

Arc Trainer® 425A Front Leg

Kit No. 425AK004 - Right Front Leg
425AK005 - Left Front Leg

Installation Instructions

NOTE: This instruction sheet describes how to replace the front legs in the Arc Trainer 425A.

Tools Required

- Phillips screwdriver
- 3/4" Open end wrench
- 5/32" Allen wrench
- 7/32" Allen wrench
- Grease

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify you received the appropriate kit. See Figure 1.

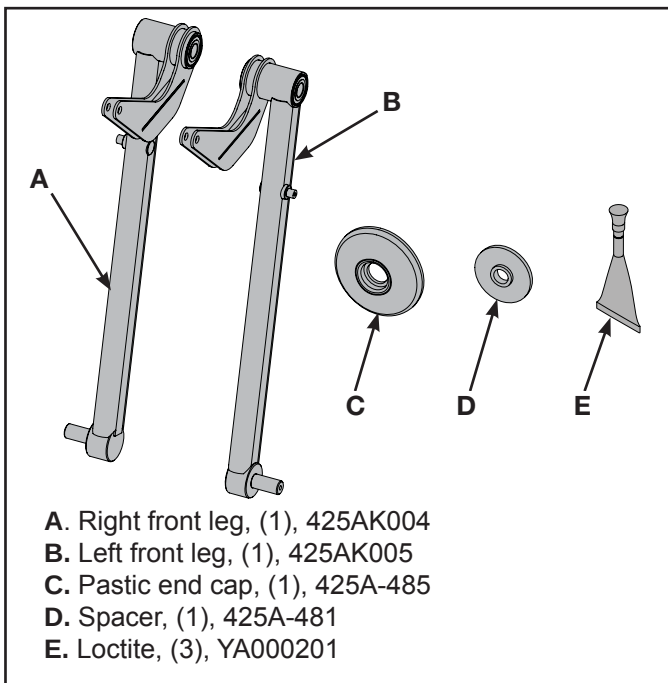


Figure 1

3. Disconnect the external power source.

A. Unplug the power cord from the power outlet.

! WARNING: Disconnect the power cord before continuing this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

4. Remove the front cover.

A. Using a Phillips screwdriver, remove the four screws securing the front cover. See Figure 2.

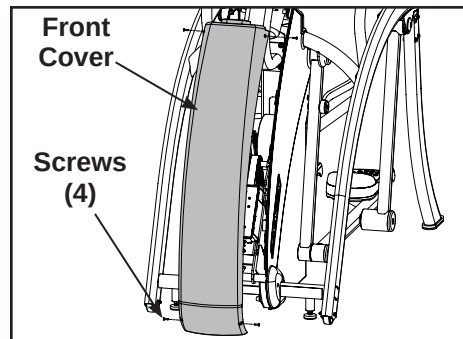


Figure 2

B. Remove front cover.

5. Remove top cover.

A. Using a Phillips screwdriver, remove the screw securing the top cover. See Figure 3.

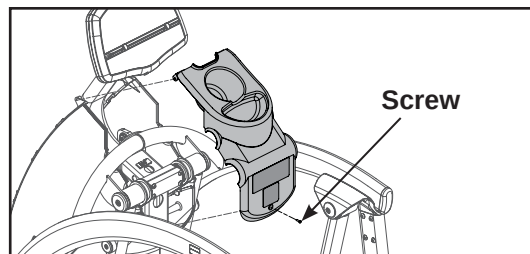


Figure 3

B. Remove top cover.

6. Remove upper side covers.

A. Using a Phillips screwdriver, remove the screw securing each upper side cover. See Figure 4 .



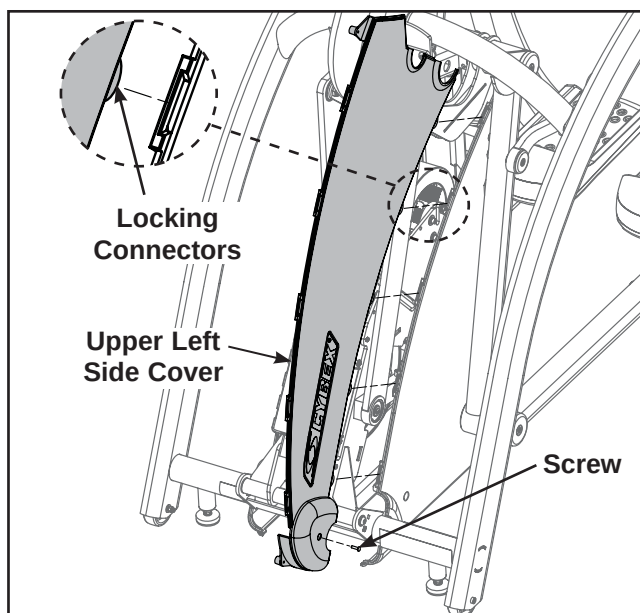


Figure 4

B. Remove upper side covers.

7. Disconnect drive link.

A. Using a 5/16" Allen wrench and 3/4" open end wrench, remove the Button Head Socket Cap Screw (BHSCS), locknut and two nylon washers and set aside. **NOTE:** The BHSCS, locknut and washers will be reused in step 17. See Figure 5.

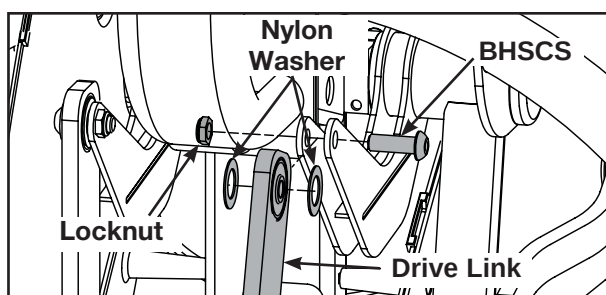


Figure 5

B. Tilt the drive link forward and lean on frame.

8. Disconnect S-link.

A. Using a 5/32" Allen wrench, remove the BHSCS, washer, plastic end cap and spacer securing both S-link of the handles to the front legs. See Figure 6.

NOTE: In older units remove the BHSCS, aluminum end caps and nylon washers.

B. Tilt handles back and lean on frame.

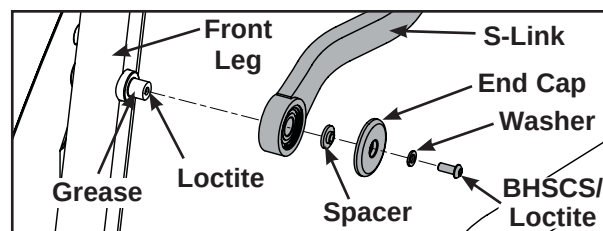


Figure 6

9. Remove BHSCS and end cap.

A. Using a 7/32" Allen wrench, remove the BHSCS, plastic end cap and spacer securing the rear leg to the foot bar. See Figure 7.

NOTE: Older units have an aluminum end cap and do not have a spacer.

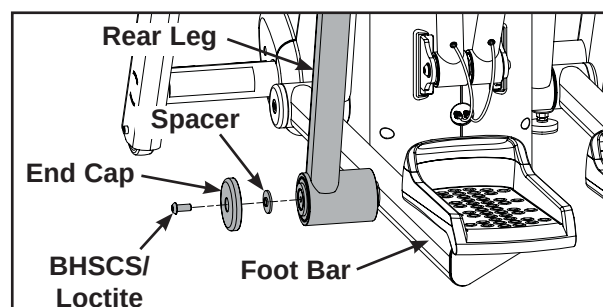


Figure 7

10. Remove rear leg and foot bar.

A. Using two 7/32" Allen wrench, remove the inside BHSCS, plastic end cap and spacer. While holding the rear leg, remove the pivot pin. **NOTE:** You may need a rubber mallet and punch to remove the pivot pin.

NOTE: Older units have an aluminum end cap and do not have a spacer.

B. Carefully lower the rear leg. See Figure 8.

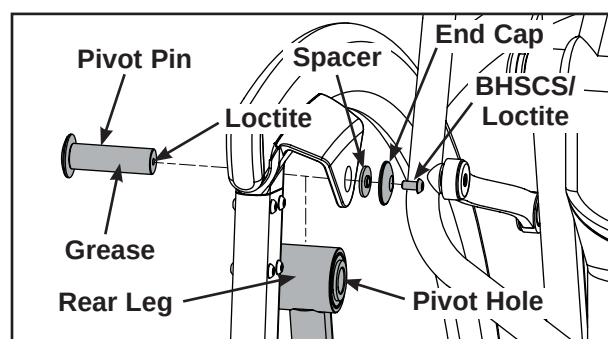


Figure 8

- C. Using a 7/32" Allen wrench, remove the BHSCS, pastic end cap and spacer securing the foot bar to the front leg. See Figure 9.

NOTE: Older units have an aluminum end cap and do not have a spacer.

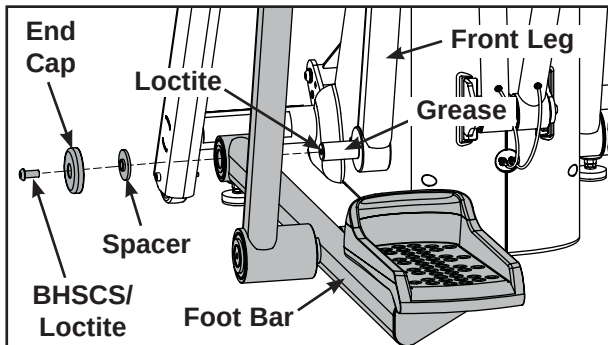


Figure 9

- D. Remove the foot bar and rear leg.

11. Remove the front leg.

- A. Using a 7/32 Allen wrench, remove the two BHSCS, two end plastic caps and two spacers securing the front legs to frame. See Figure 10.

NOTE: Older units have an aluminum end cap and do not have a spacer.

- B. While holding the front legs, use a 7/32" Allen wrench to remove the four BHSCS and clamp block securing the pivot pin to frame. See Figure 10.

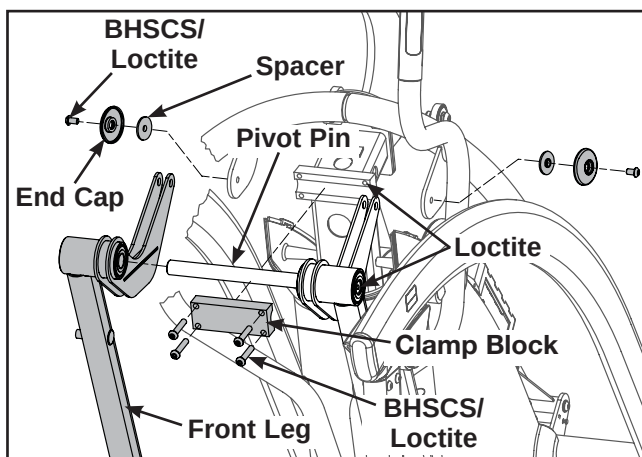


Figure 10

- C. Pull the pivot pin and front legs away from frame. See Figure 10.

- D. Slide the appropriate front leg off of the pivot pin and discard. See Figure 10.

12. Attach new front leg.

- A. Slide the new front leg (A or B) on to the pivot pin.
- B. Place a drop of loctite (E) on the six BHSCS (removed in steps 11A and 11B) and another drop inside the shaft into where the BHSCS will be tightened. See Figure 10.
- C. Using 7/32" Allen wrench, reattach the clamp block and four BHSCS/loctite (removed in step 11B) securing the pivot pin to the frame. See Figure 10.
- D. Using 7/32" Allen wrench, reattach the two spacers, two plastic end cap and two BHSCS/loctite (removed in step 11A). See Figure 10.

13. Reattach foot bar.

- A. Place grease on the outside of the front leg shaft. See Figure 9.
- B. Place the foot bar into position on the front leg. See Figure 9.
- C. Place a drop of loctite (E) on the BHSCS removed in step 10C and another drop inside the shaft into where the BHSCS will be tightened. See Figure 9.
- D. Using 7/32" Allen wrench, reinstall the BHSCS/loctite, plastic end cap and spacer (removed in step 10C). See Figure 9.

14. Install rear leg.

- A. Place grease on the pivot pin (removed in step 10A). See Figure 8.
- B. Place the rear leg so that the pivot hole aligns with the holes in the frame. See Figure 8.
- C. Insert pivot pin. See Figure 8.
- D. Place a drop of loctite (E) on the BHSCS removed in step 10A and another drop inside the shaft of the pivot pin into where the BHSCS will be tightened. See Figure 8.
- E. Install the BHSCS/loctite, pastic end cap and space to the pivot pin and tighten using two 7/32" Allen wrenches. See Figure 8.

15. Reinstall the BHSCS/loctite and end cap.

- A. Place a drop of loctite (E) on the BHSCS removed in step 9A and another drop inside the shaft into where the BHSCS will be tightened.
- B. Using a 7/32" Allen wrench reinstall the BHSCS/ loctite, pastic end cap and spacer (removed in step 9A), securing the foot bar to the rear leg. See Figure 7.
- C. Tighten securely.

16. Reattach the S-link.

- A. Place grease on the outside of shaft. See Figure 6.
- B. Place a drop of loctite (E) on the BHSCS removed in step 8A and another drop inside the shaft into where each BHSCS will be tightened. See Figure 6
- C. Install the BHSCS/loctite, washer, pastic end cap and spacer (removed in 8A). See Figure 6.
- D. Using a 5/32" Allen wrench, tighten the BHSCS securely.

17. Reattach the drive link.

- A. Place a nylon washer removed in step 7A on each side of the drive link, then place in position on the front leg. See Figure 5.

NOTE: Do not let nylon washer slide down over the bearing face while tighting. See Figure 11.

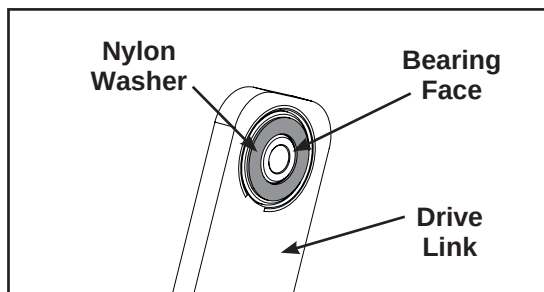


Figure 11

- B. Install the BHSCS and locknut removed in step 7A.
- C. Using a 5/16" Allen wrench and 3/4" open end wrench, tighten the BHSCS and locknut securely.

18. Attach the upper side covers.

- A. Place the upper side covers in position. See Figure 4.
- B. Using a Phillips screwdriver, tighten the screw securing each upper side cover.

19. Attach the top cover.

- A. Place the top cover in position. See Figure 3.
- B. Using a Phillips screwdriver, tighten the screw securing the top cover.

20. Attach the front cover.

- A. Place the front cover in position. See Figure 2.
- B. Using a Phillips screwdriver, tighten the four screws securing the front cover.

21. Test unit for proper operation.

Arc Trainer® 425A Input Handle

Kit No. 425AK006 - Right Input Handle Kit
Kit No. 425AK007 - Left Input Handle Kit

Installation Instructions

NOTE: This instruction sheet describes how to replace the input handle in the Arc Trainer 425A.

Tools Required

- 5/32" Allen wrench
- 7/32" Allen wrench (2)
- Grease

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify kit contents. See Figure 1.

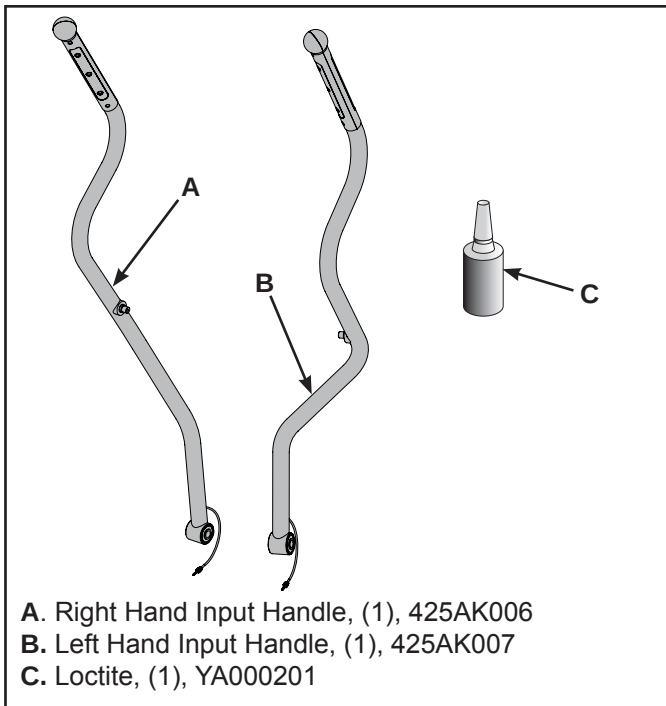


Figure 1

3. Remove the proper input handle.

- A. Unplug the power cord from the power outlet.
- B. Confirm you have the proper replacement handle. **NOTE:** The two handles are not interchangeable.

- C. Using a 5/32" Allen wrench, remove the BHSCS (Button Head Socket Cap Screw), end cap and nylon washer securing the S-link to the input handle. See Figure 2.

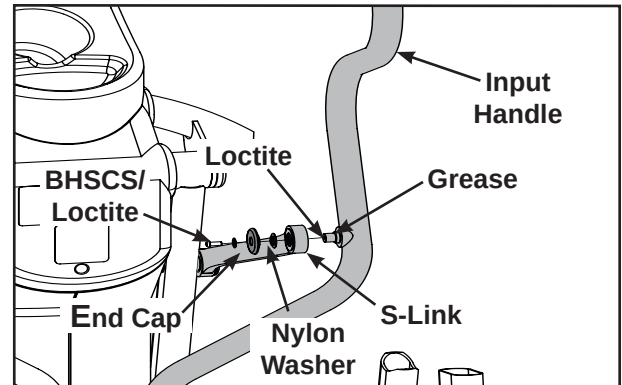


Figure 2

- D. Unplug the heart rate cable. See Figure 3.
- E. Using two 7/32" Allen wrenches remove the BHSCS and washer from the pivot shaft. See Figure 3.
- F. Slide the pivot shaft through main frame opening to remove input handle. See Figure 3.
- G. Remove the proper input handle.

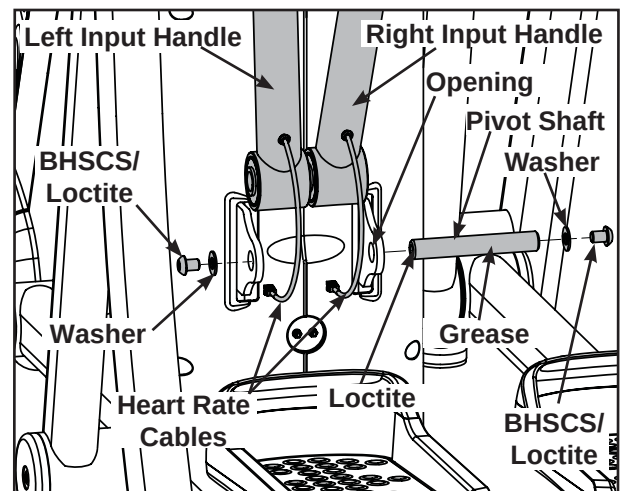


Figure 3



4. Install the proper new input handle.

- A. Place grease on the outside of pivot shaft.
See Figure 3.
- B. Position the new input handle vertically and align with the main frame opening. See Figure 3.
- C. Push pivot shaft through handle opening and main frame opening. See Figure 3.
- D. Place a drop of loctite (C) on the BHSCS and another drop inside the pivot shaft where the BHSCS will be tighten into.
- E. Using both 7/32" Allen wrenches, install the BHSCS/loctite and washer as shown in Figure 3. **NOTE:** *Handles will wobble if not securely tightened.*

5. Attach S-Link.

- A. Place grease on outside of shaft. See Figure 2.
- B. Attach the S-link to the new input handle. See Figure 2.
- C. Place a drop of loctite (C) on the BHSCS (removed in step 3C) and another drop into the shaft where it will be threaded into.
- D. Using 5/32" Allen wrench, secure the S-Link to the handle using the BHSCS/loctite, end cap and nylon washer (removed in step 3C). See Figure 2.

6. Test unit for proper operation.

Arc Trainer® 425A Foot Bar

Kit No. 425AK008 - Right Foot Bar
425AK009 - Left Foot Bar

Installation Instructions

NOTE: This instruction sheet describes how to replace the foot bars in the Arc Trainer 425A.

Tools Required

- 7/32 Allen wrench (2)
- Rubber mallet and punch (optional)
- Grease

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify you received the appropriate kit. See Figure 1.

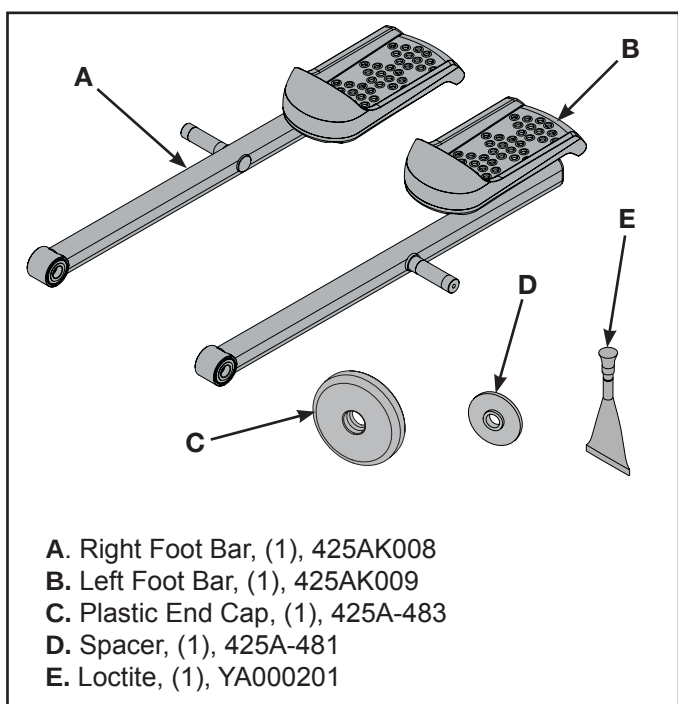


Figure 1

3. Confirm the proper replacement foot bar.

- A. Unplug the power cord from the power outlet.
- B. Confirm you have the proper replacement foot bar. **NOTE:** The two foot bars are not interchangeable.

4. Remove BHSCS and end cap.

- A. Using a 7/32" Allen wrench, remove the Button Head Socket Cap Screw (BHSCS), plastic end cap and spacer securing the rear leg to the foot bar. See Figure 2.

NOTE: Older units have an aluminum end cap and do not have a spacer.

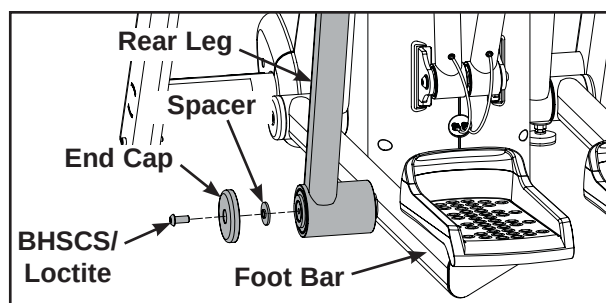


Figure 2

5. Remove rear leg.

- A. Using two 7/32" Allen wrenches, remove the inside BHSCS, plastic end cap and spacer as shown in Figure 3. While holding the rear leg remove the pivot pin. **NOTE:** You may need a rubber mallet and punch to remove the pivot pin.

NOTE: Older units have an aluminum end cap and do not have a spacer.

- B. Carefully lower the rear leg. See Figure 3.

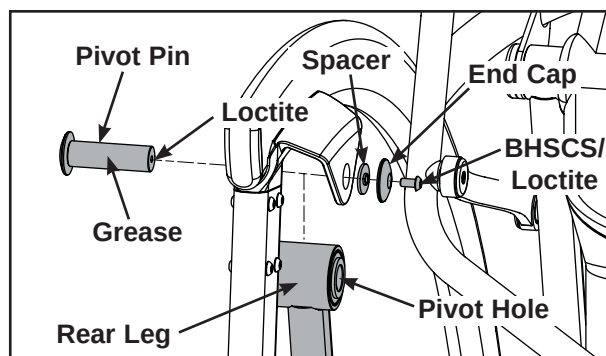


Figure 3



- C. Remove the rear leg from the foot bar. See Figure 4.

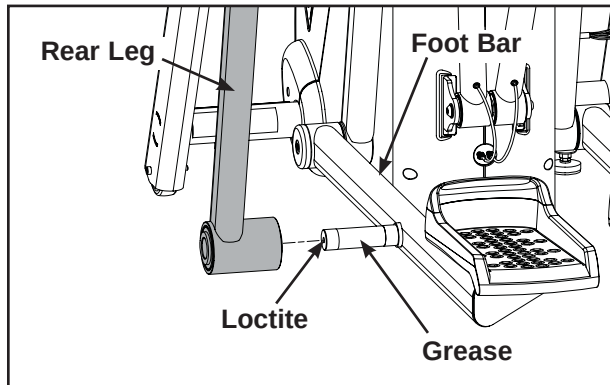


Figure 4

6. Remove foot bar.

- A. Using a 7/32" Allen wrench, remove the BHSCS, plastic end cap and spacer securing the foot bar to the front leg. See Figure 5.

NOTE: Older units have an aluminum end cap and do not have a spacer.

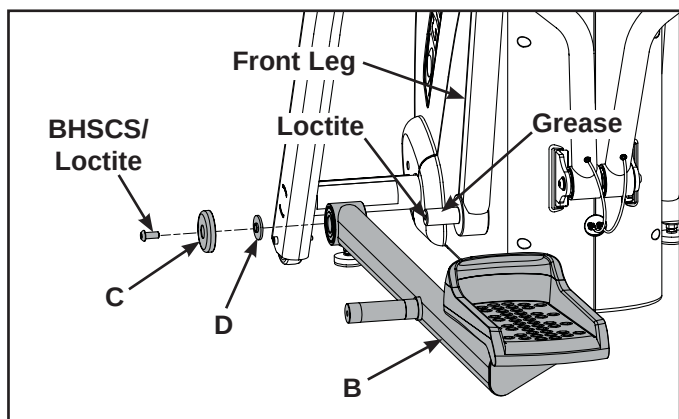


Figure 5

- B. Remove the foot bar.

7. Install new foot bar.

- A. Place grease on the outside of the front leg shaft. See Figure 5.
- B. Place the new foot bar (A) or (B) into position on the front leg.
- C. Place a drop of loctite (E) on the BHSCS and another drop inside the shaft into where the BHSCS will be tightened.

- D. Using a 7/32" Allen wrench, install the BHSCS/loctite, new plastic end cap (C) and new spacer (D) as shown in Figure 5.
- NOTE:** Instead of installing these new parts, you can reinstall the old aluminum end cap.

- E. Tighten securely.

8. Install rear leg on the new foot bar.

- A. Place grease on the outside of the new foot bar shaft. See Figure 4.
- B. Place the rear leg into position on the new foot bar.

9. Install rear leg.

- A. Place grease on the pivot pin that was removed in step 5A. See Figure 3.
- B. Place the rear leg so that the pivot hole aligns with the holes in the frame. See Figure 3.
- C. Insert pivot pin. See Figure 3.
- D. Place a drop of loctite (E) on the BHSCS removed in step 5A and another drop inside the shaft of the pivot pin to where the BHSCS will be tightened. See Figure 3.
- E. Install the BHSCS/loctite and retainer to the pivot pin and tighten using two 7/32" Allen wrenches. See Figure 3.

10. Reinstall the BHSCS/loctite and end cap.

- A. Place a drop of loctite (E) on the BHSCS removed in step 4A and another drop inside the shaft into where the BHSCS will be tightened.
- B. Using a 7/32" Allen wrench, reinstall the BHSCS/loctite and end cap that was removed in step 4A. See Figure 2.

- C. Tighten securely.

11. Test for proper operation.

Arc Trainer® 425A Upper Side Cover

Kit No. 425AK010 (Right Upper Side Cover)
425AK011 (Left Upper Side Cover)

Installation Instructions

NOTE: This instruction sheet describes how to replace the upper side cover in the Arc Trainer 425A.

Tools Required

- Phillips screwdriver

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify you received the appropriate kit. See Figure 1.

- A. 425AK010 Right upper side cover
B. 425AK011 Left upper side cover

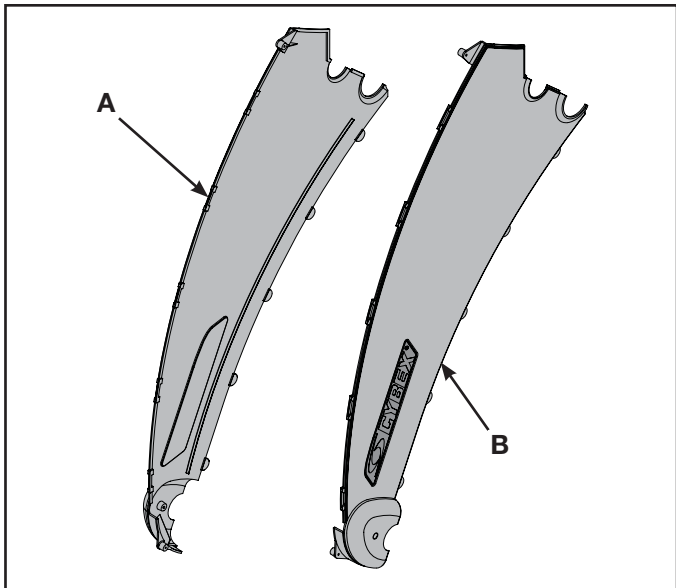


Figure 1

3. Disconnect the external power source.
A. Unplug the power cord from the power outlet.

! WARNING: Disconnect the power cord before continuing this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

4. Remove the front cover.

- A. Using a Phillips screwdriver, remove the four screws securing the front cover. See Figure 2.

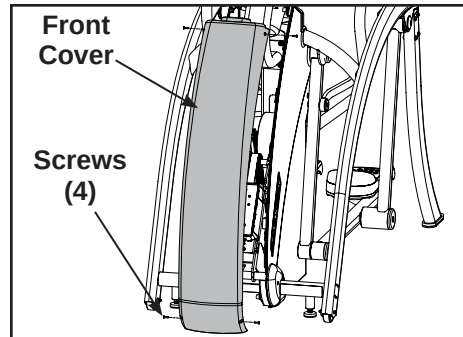


Figure 2

- B. Remove front cover.

5. Remove top cover.

- A. Using a Phillips screwdriver, remove the screw securing the top cover. See Figure 3.

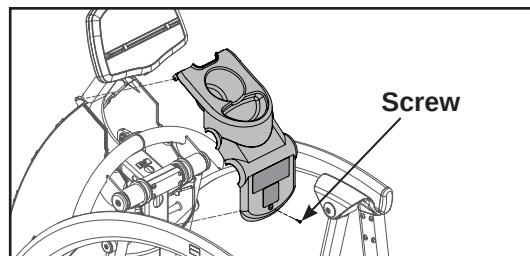


Figure 3

- B. Remove top cover.

6. Remove upper side cover.

- A. Using a Phillips screwdriver, remove the screw securing the upper side cover (A) or (B). See Figure 4.



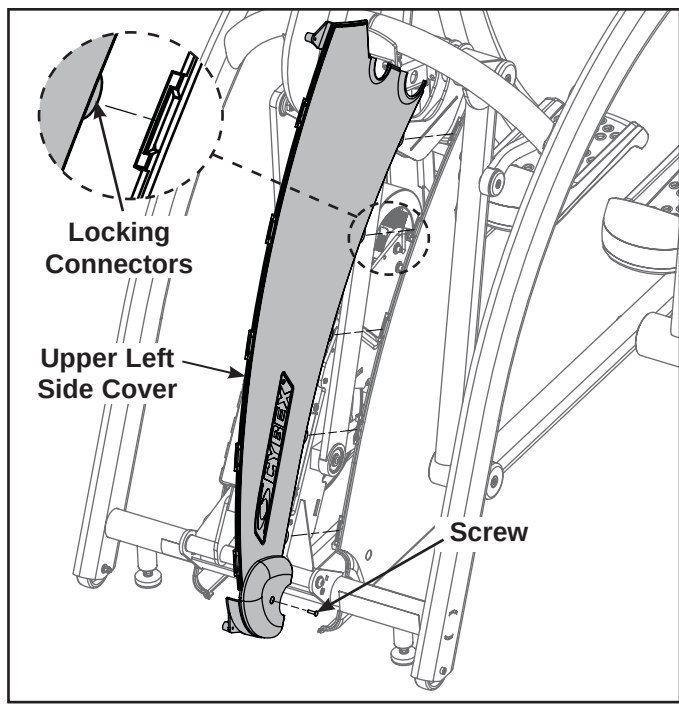


Figure 4

- B. Remove upper side cover.

7. Attach the new upper side cover.

- A. Place the new upper side cover (A) or (B) in position. See Figure 4.
- B. Using a Phillips screwdriver, tighten the screw securing the new upper side cover.

8. Attach the top cover.

- A. Place the top cover in position. See Figure 3.
- B. Using a Phillips screwdriver, tighten the screw securing the top cover.

9. Attach the front cover.

- A. Place the front cover in position. See Figure 2.
- B. Using a Phillips screwdriver, tighten the four screws securing the front cover.

10. Test unit for proper operation.

Arc Trainer® 425A Top Cover

Kit No. 425AK012

Installation Instructions

NOTE: This instruction sheet describes how to replace the top cover in the Arc Trainer 425A.

Tools Required

- Phillips screwdriver

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify kit contents. See Figure 1.

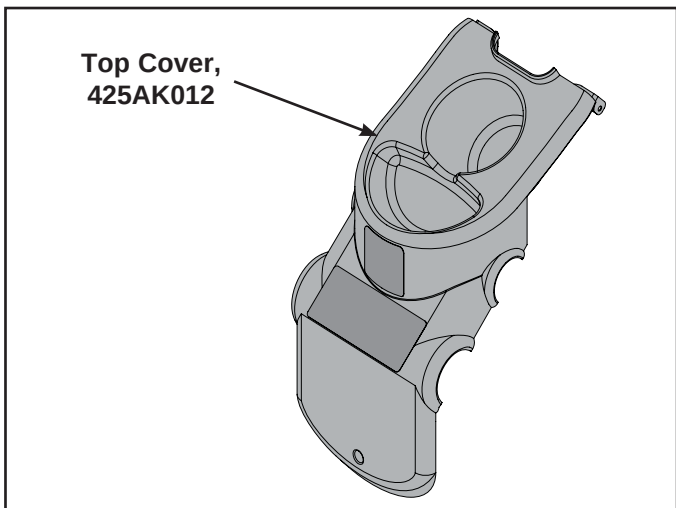


Figure 1

3. Remove the top cover.

- A. Using a Phillips screwdriver, remove the three screws securing the top cover. See Figure 2.

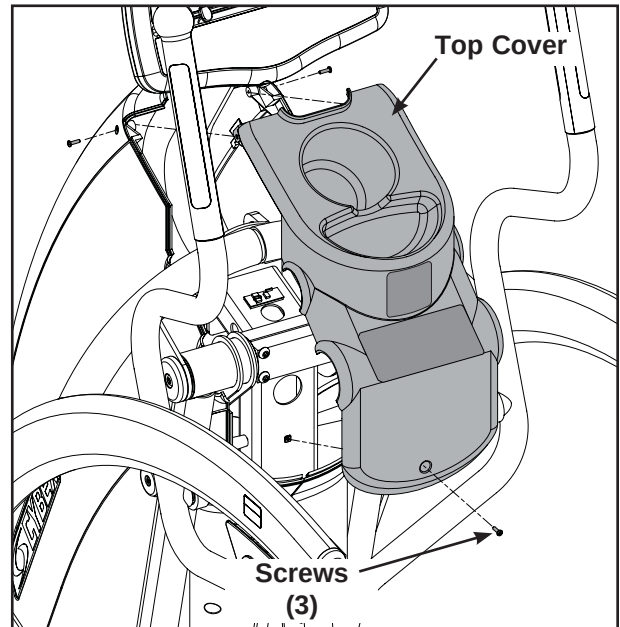


Figure 2

- B. Remove existing top cover.

4. Install new top cover.

- A. Place the new top cover in position.
- B. Using a Phillips screwdriver, attach the cover using the three screws removed in step 3A.
- C. Tighten screws securely.

5. Test the unit to verify proper operation.



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Arc Trainer® 425A S-Link

Kit No. 425AK013

Installation Instructions

NOTE: This instruction sheet describes how to replace the S-Link in the Arc Trainer 425A.

Tools Required

- 5/32" Allen wrench
- Grease

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify kit contents. See Figure 1.

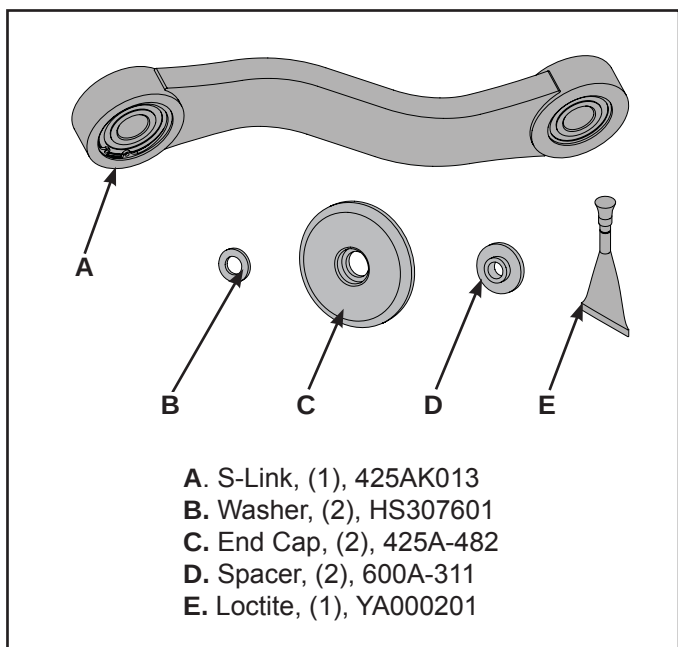


Figure 1

3. Remove the S-link.

- A.** Using a 5/32" Allen wrench, remove each Button Head Socket Cap Screw (BHSCS), washer, end cap and spacer securing both ends of the S-link. See Figure 2.

NOTE: In older units remove the BHSCS, aluminum end cap and nylon washer. These parts can be reinstalled rather than using the new washer, plastic end cap and spacer.

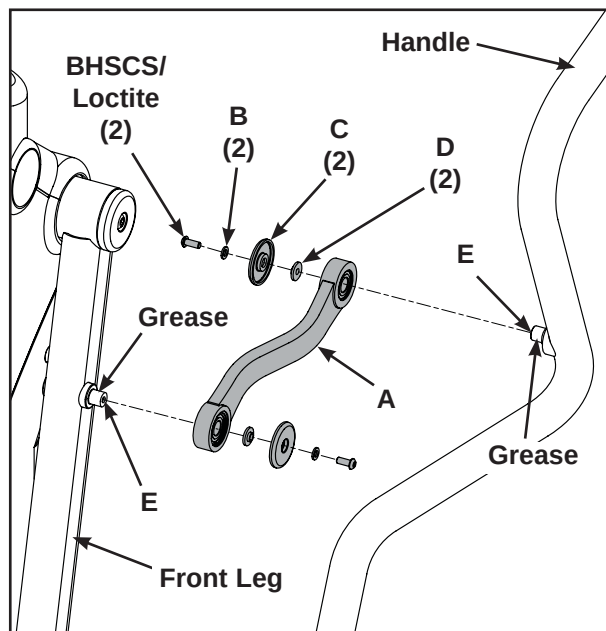


Figure 2

- B.** Remove the S-link.

4. Installing the new S-link.

- A.** Place grease on the outside of shaft. See Figure 2.
- B.** Place the new S-link (A) in position. See Figure 2.
- C.** Place a drop of loctite (E) to threads of each BHSCS removed in step 3A and another drop inside the shaft into where each BHSCS will be tightened.
- D.** Install the two new spacers (D), two new end caps (C), two new washers (B) and two BHSCS/loctite as shown in Figure 2. **NOTE:** Instead of installing these new parts you can reinstall the old end cap and nylon washer.
- E.** Using a 5/32" Allen wrench, tighten both BHSCS securely.
- F.** Test the unit to verify proper operation.



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Arc Trainer® 425A Side Handles

Kit No. 425AK015

Installation Instructions

NOTE: This instruction sheet describes how to install the side handles on the Arc Trainer 425A.

Tools Required

- 7/32" Allen wrench

1. Read and understand all instructions thoroughly before installing this kit.

2. Verify kit contents. See Figure 1.

- A. Left side handle (1), 425A-217
- B. Right side handle (1), 425A-218
- C. BHSCS .375-16 x .75 blk zinc (8), HS-60531
- D. Loctite #242, YA000201

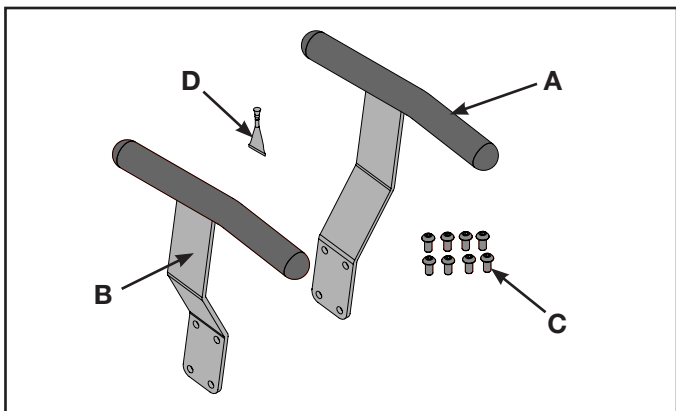


Figure 1

3. Install the handles.

- A. Using a 7/32" Allen wrench, remove the outside four Button Head Socket Cap Screw (BHSCS) securing the left rear leg to the frame. See Figure 2.

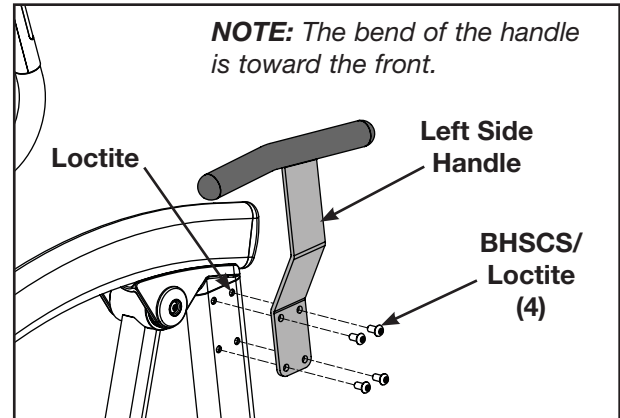


Figure 2

- B. Place a drop of loctite (D) on the four new BHSCS (C). Place another drop of loctite in the threaded hole where each BHSCS will be tightened into.
- C. Install the left side handle using the four BHSCS/loctite. Tighten the four BHSCS securely. **NOTE:** Install the handle bracket so that the bend of the handle is toward the front. Figure 2.
- D. Repeat steps 3A through 3C to install the right side handle.
- E. Test the unit to verify proper operation.



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Arc Trainer® 425A A/V

Kit No. 425AK016

Installation Instructions

NOTE: This instruction sheet describes how to install the Audio/Visual mount on the Arc Trainer 425A.

Tools Required

- 5/32" Allen wrench
- 7/32" Allen wrench (2)
- Phillips screwdriver
- Side cutter
- Cloth

1. Read and understand all instructions thoroughly before installing this kit.

2. Verify kit contents.

- A. Console monitor mount (1), 425A-219
- B. Coax and power cable (1), AW-18460
- C. Controller mount bracket (1), 425A-516
- D. BHSCS .250-20 X 1.250 SS (4), HX620420
- E. Lockwasher .250 SS (4), HS307400
- F. Cable Tie (3), EW000028
- G. Poster (1), 425A-518 (not shown)
- H. Loctite (1), YA000201
- I. Strain relief bushing (1), PP740000

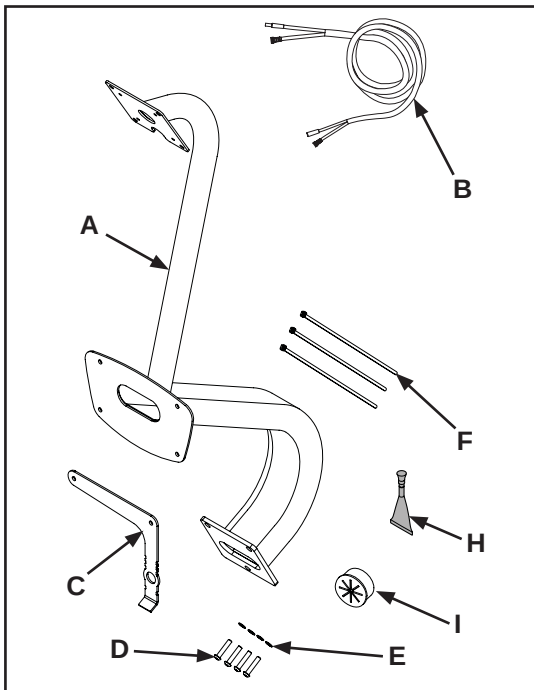


Figure 1

NOTE: Monitor and controller is not included in kit.

3. Verify you have the monitor, controller with cables and power supply (not included in this kit).

4. Elevate the unit and disconnect the power source.

A. Elevate the unit to level 10 incline.

B. While the unit is elevated, unplug the power cord from the power outlet.

! WARNING: Disconnect the power cord before continuing this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

NOTE: To protect paint, place a cloth over upper frame before removing handles.

5. Remove the input handles.

A. Using a 5/32" Allen wrench, remove the Button Head Socket Cap Screw (BHSCS), washer, end cap and spacer securing the S-link to the input handles. See Figure 2.

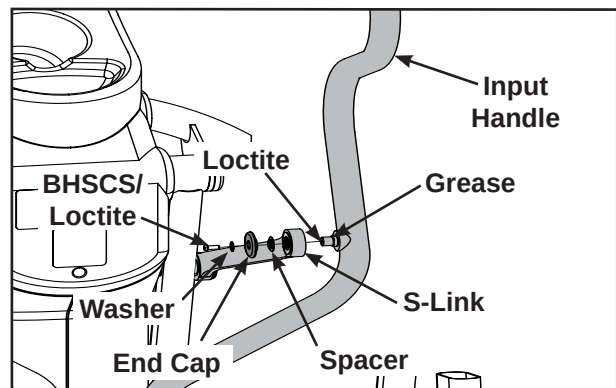


Figure 2

B. Unplug the heart rate cable. See Figure 3.

C. Using two 7/32" Allen wrenches, remove the BHSCS and washer from the pivot shaft. See Figure 3.



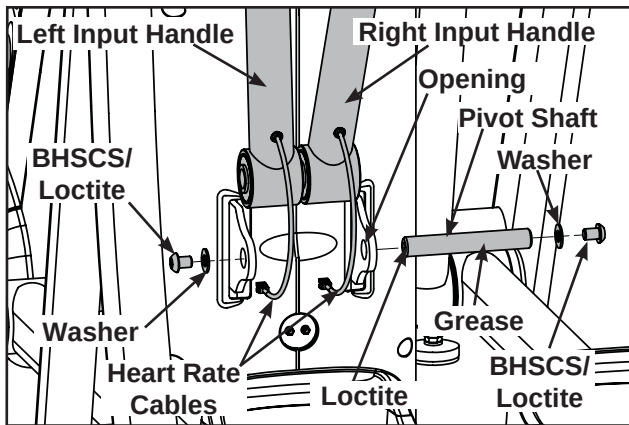


Figure 3

- D. Slide the pivot shaft through main frame opening to remove input handles. See Figure 3.
- E. Set input handles aside. They will be reattached later.

6. Remove the front cover.

- A. Using a Phillips screwdriver, remove the four screws securing the front cover. See Figure 4.

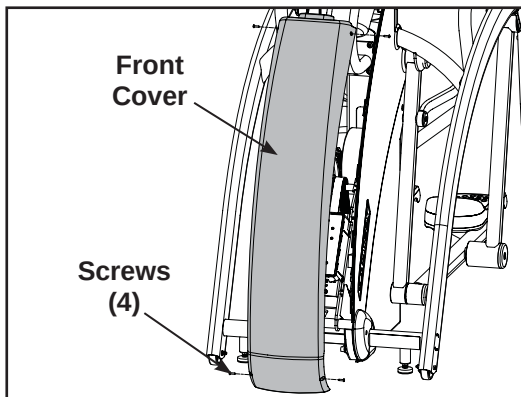


Figure 4

- B. Remove front cover.

7. Remove top cover.

- A. Using a Phillips screwdriver, remove the screw securing the top cover. See Figure 5.

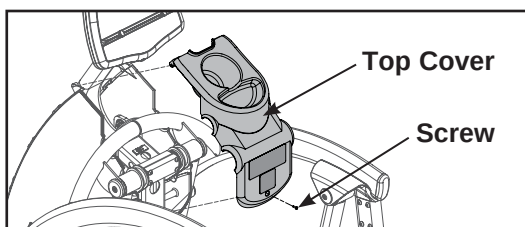


Figure 5

- B. Remove top cover.

8. Remove upper side covers.

- A. Using a Phillips screwdriver, remove the screw securing each of the upper side covers. See Figure 6.

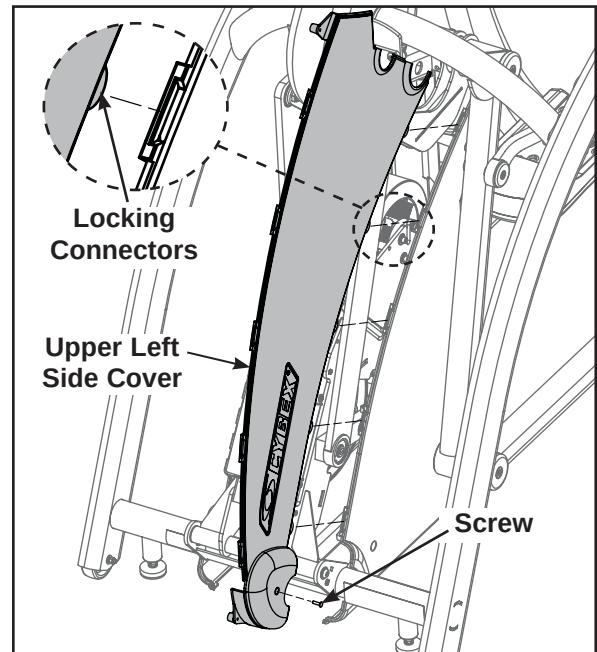


Figure 6

- B. Remove upper side covers.

9. Remove lower side covers.

- A. Using a Phillips screwdriver, remove the four screws securing each of the lower side covers. See Figure 7.

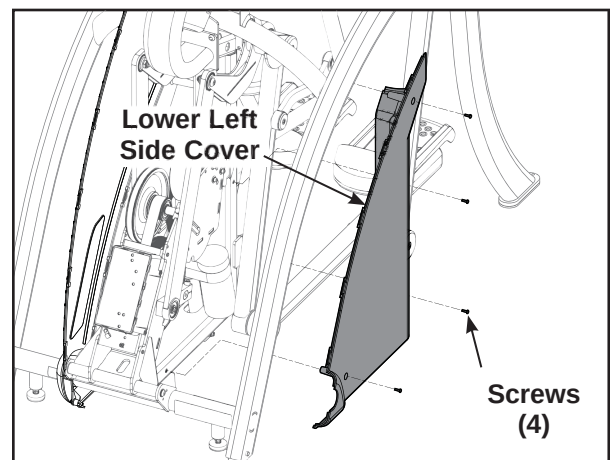


Figure 7

- B. Remove both lower side covers.

10. Remove the display console.

- A. Using a 5/32" Allen wrench, remove the four BHSCS with lock washers securing the display console to the console mount. See Figure 8.

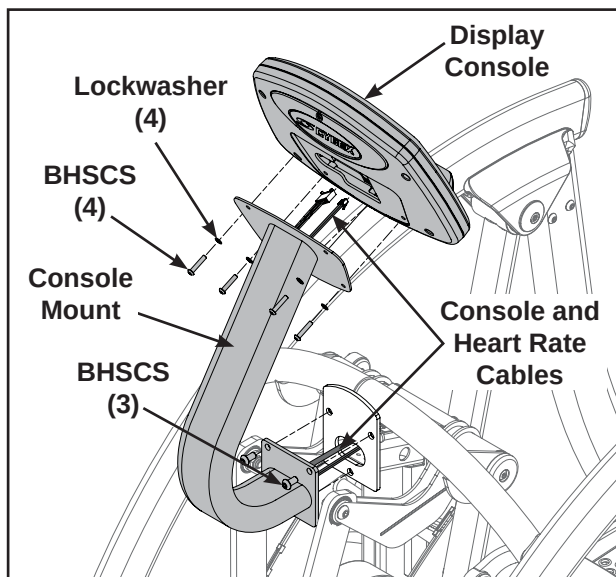


Figure 8

- B. Disconnect the console and heart rate cables from the display console. See Figure 8.
- C. Using a 7/32" Allen wrench, remove the three BHSCS securing the console mount to the frame. See Figure 8.

11. Route the coax and power cable.

- A. Using a side cutter, cut the three cable ties. See Figure 9.

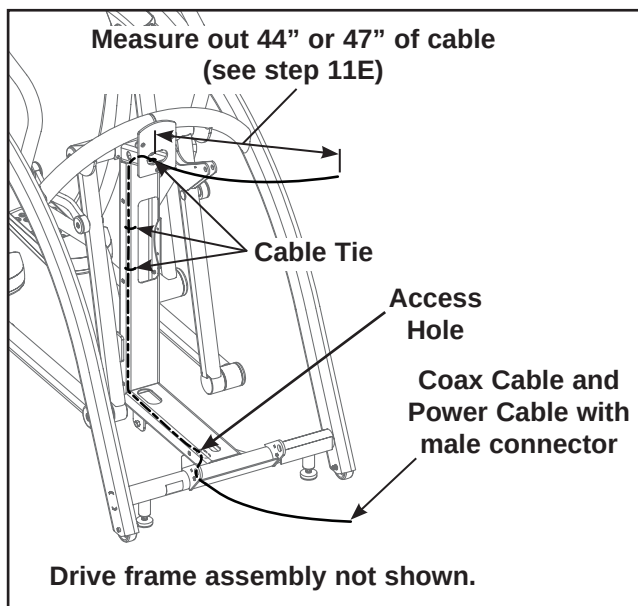


Figure 9

NOTE: The Power Cable (B) has a male and female connector at either end. Make sure the female end goes to the Monitor and the male end is at the base. See Figure 10.

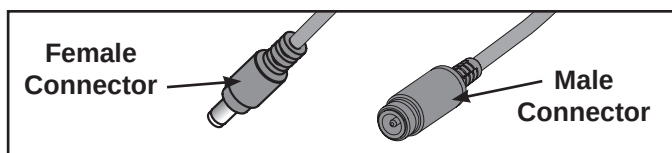


Figure 10

- B. Locate the coax and power cable (B).
- C. Tape the ends of the coax and power cable together (making it easier to guide the cables down the frame).
- D. Route the cable inside top of frame as shown in Figure 9.
- E. For monitors with center connectors, measure out 44" of cable. For monitors with side connectors, measure out 47" of cable.
- F. Pull the extra coax and power cables out of the bottom of the main frame. See Figure 9.
- G. Attach three cable ties (F) replacing the ones removed in step 11A. See Figure 9.
- NOTE:** Leave cable ties loose for cable adjustment. They will be tightened later.

12. Install cables in console mount.

- A. Locate the console mount (A).
- B. Locate the console, heart rate, coax and power cables on the mainframe assembly.
- C. Insert the cables into the bottom of the console mount (A) until the cables exit the top of the console mount opening. See Figure 11.

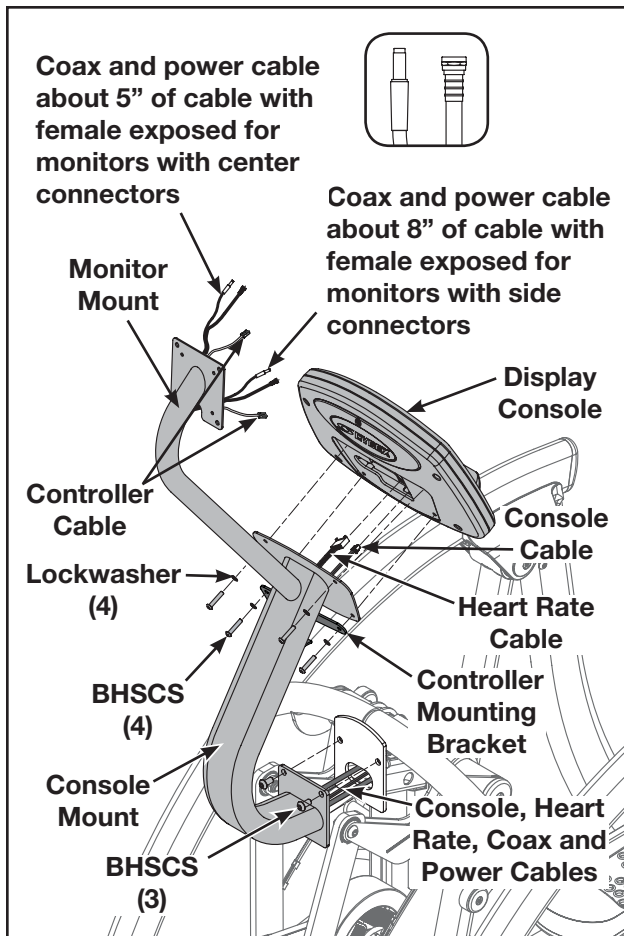


Figure 11

13. Attach the console mount.

- A. Position the console mount (A) on the main frame assembly and hand thread each of the three BHSCS. See Figure 11.
- B. Securely fasten the BHSCS with a 7/32" Allen wrench.

14. Insert the coax and power cables.

- A. Route the coax and power cable up through the monitor mount until cable exits the top. See Figure 11.
- B. With 5" or 8" of coax and power cables exiting the top of the monitor mount, pull the extra coax and power cables out of the bottom of the main frame. See Figure 11.

15. Insert the controller cable.

- A. Route the controller cable down through the monitor mount until the cable exits the hole in the console mount. See Figure 12.

16. Attach strain relief bushing.

- A. Insert controller cable through the strain relief bushing. See Figure 12.

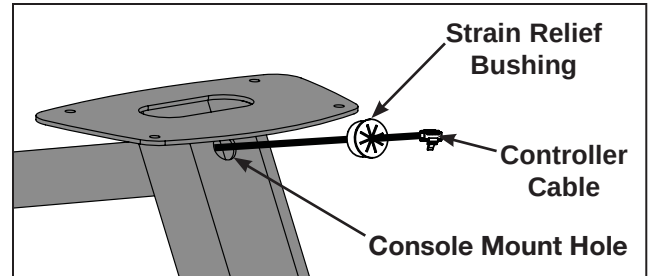


Figure 12

- B. Insert the strain relief bushing into the console mount hole.

17. Attach the display console and controller.

- A. Connect the console and heart rate cables (exiting the top of the console mount) to the display console. See Figure 11.
- B. Using two screws and lock washers, secure the top of the display console to the console mount. See Figure 11.
- C. Attach the controller mounting bracket to the bottom of the console mount using the remaining two screws and lock washers. See Figure 11.
- D. Secure controller to the controller mounting bracket with nylon ties (not included in this kit) as recommended by the controller manufacturer.
- E. Plug the controller cable connector to the back of the controller. **NOTE:** Ensure cable connectors are securely fastened.

18. Installing the Monitor.

NOTE: An assistant is required when installing the monitor.

- A. Secure monitor on the monitor bracket using the hardware supplied with the monitor. See Figure 13. **NOTE:** For monitors with center connectors, remove the back plate from the monitor and secure back to the mounting bracket.

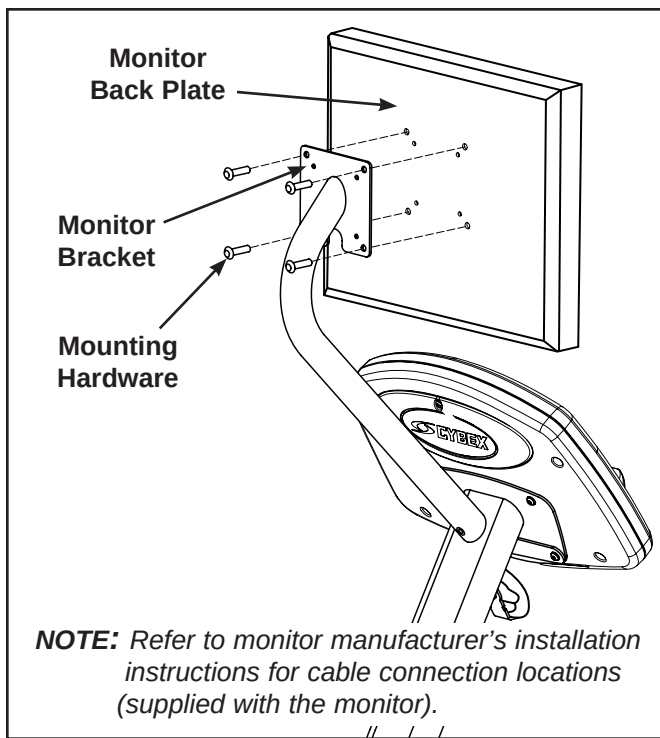


Figure 13

- B. Remove the tape holding the coax and power cable ends together and install them in to their connections on the monitor. **NOTE:** Refer to monitor manufacturer's installation instructions for cable connection locations (supplied with the monitor).

- C. Reinstall the monitor to the monitor back plate (if removed).

19. Tighten the three cable ties.

- A. Pull the loose coax and power cables through the access hole. See Figure 9.
- B. Tighten the three cable ties securely. See Figure 9.

20. Plug in AC/DC adapter and coax cables.

- A. Locate the AC/DC adapter supplied with the monitor and plug into the coax and power cable exiting the base of the Arc.
- B. Plug the power cord into the AC/DC adapter. **NOTE:** You will need a power adapter and a A/V adapter.
- C. Thread the antenna/cable source cable (supplied at the site location) into the coax and power cable exiting the base of the Arc.

21. Attach the lower side covers.

- A. Hold the lower covers in place. See Figure 7.
- B. Using a Phillips screwdriver, tighten the four screws securing each lower side cover.

22. Attach the upper side covers.

- A. Place the upper side covers in position. See Figure 6.
- B. Using a Phillips screwdriver, tighten the screw securing each upper side cover.

23. Attach the top cover.

- A. Place the top cover in position. See Figure 5.
- B. Using a Phillips screwdriver, tighten the screw securing the top cover.

24. Attach the front cover.

- A. Place the front cover in position. See Figure 4.
- B. Using a Phillips screwdriver, tighten the four screws securing the front cover.

25. Attach the input handles.

- A. Position right input handle vertically and align handle opening with mainframe opening. See Figure 3.
- B. Insert pivot shaft into mainframe and handle openings. See Figure 3.
- C. Position left input handle vertically and align handle opening with mainframe opening.
- D. Push pivot shaft through opening.
- E. Apply loctite (H) to the two BHSCS (removed in step 5C) and into where they will be threaded.
- F. Using two 7/32" Allen wrenches, attach the two BHSCS/Loctite and two washers to the pivot shaft. See Figure 3. **NOTE:** Handle will wobble if not securely tightened.
- G. Attach the heart rate cables. See Figure 3.

26. Attach S-Links.

- A.** Place the S-links in position on the handles.
See Figure 2.
- B.** Place a drop of Loctite (H) to the threads of each BHSCS removed in step 5A and another drop inside the shaft into where each BHSCS will be tightened.
- C.** Install the spacer, end cap, washer and BHSCS/loctite as shown Figure 2.
- D.** Using a 5/32" Allen wrench, tighten BHSCS securely.

27. Test the unit for proper operation.

- A.** Connect the power cord into the power outlet.
- B.** Operate the unit to verify proper operation.

Arc Trainer® 425A Plastic Insert

Kit No. 425AK017 - Plastic Insert

Installation Instructions

NOTE: This instruction sheet describes how to replace the plastic insert on the Arc Trainer 425A.

Tools Required

- Phillips screwdriver
- Utility knife
- 5/16" Nut driver or wrench
- Cloth
- 5/32" Allen wrench
- 7/32" Allen wrench (2)

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify kit contents. See Figure 1.

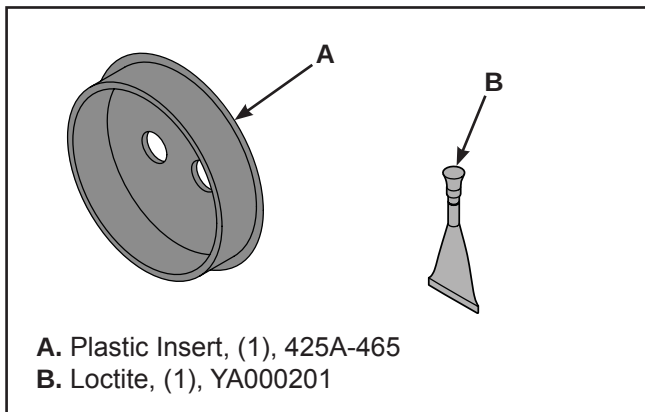


Figure 1

! WARNING: Disconnect the power cord before beginning this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

3. Disconnect the external power source.

- A. Unplug the power cord from the power outlet.

NOTE: To protect paint, place a cloth over upper frame before removing handles.

4. Remove the input handles.

- A. Using a 5/32" Allen wrench, remove the Button Head Socket Cap Screw (BHSCS), washer, end cap and spacer securing the S-link to the input handles. See Figure 2.

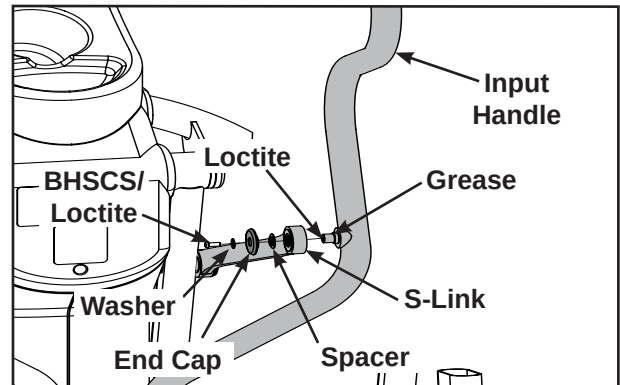


Figure 2

- B. Unplug the heart rate cables. See Figure 3.
- C. Using two 7/32" Allen wrenches, remove the BHSCS and washer from the pivot shaft. See Figure 3.

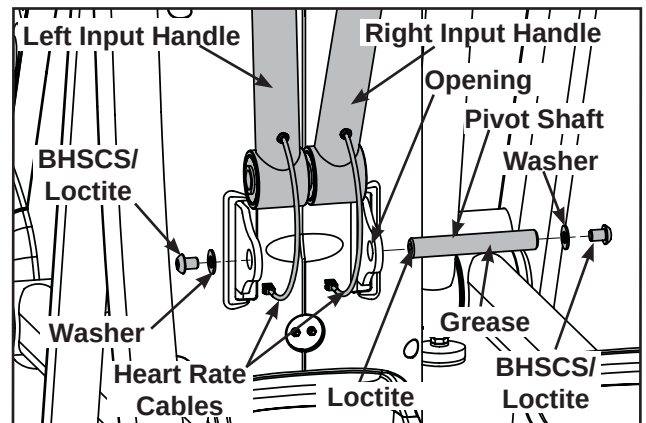


Figure 3

- D. Slide the pivot shaft through main frame opening to remove input handles. See Figure 3.

- E. Set input handles aside (these will be reattached step 15).

5. Remove the front cover.

- A. Using a Phillips screwdriver, remove the four screws securing the front cover. See Figure 4.
- B. Remove front cover.



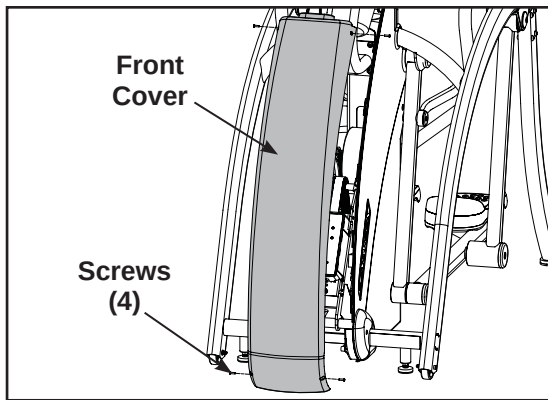


Figure 4

6. Remove top cover.

- A. Using a Phillips screwdriver, remove the screw securing the top cover. See Figure 5.

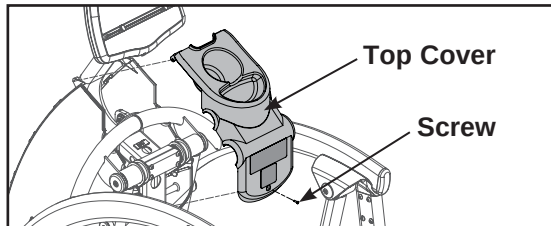


Figure 5

- B. Remove top cover.

7. Remove both upper side covers.

- A. Using a Phillips screwdriver, remove the screw securing each of the upper side covers. See Figure 6.

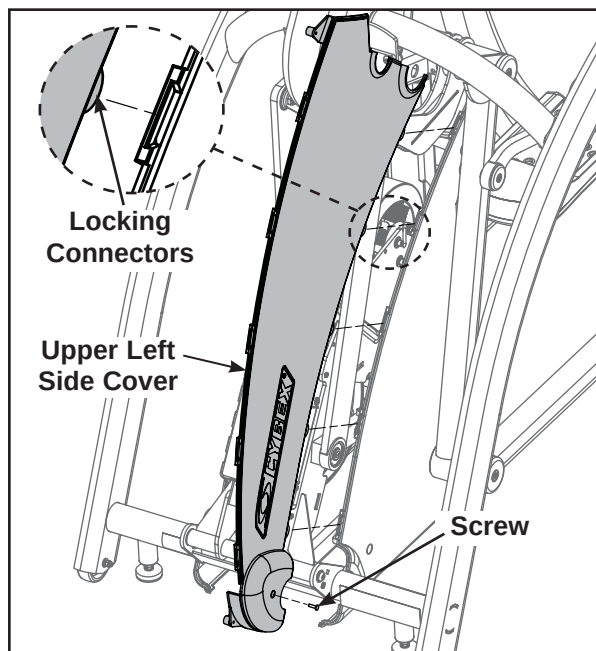


Figure 6

- B. Remove upper side covers.

8. Remove both lower side covers.

- A. Using a Phillips screwdriver, remove the four screws securing each of the lower side covers. See Figure 7.

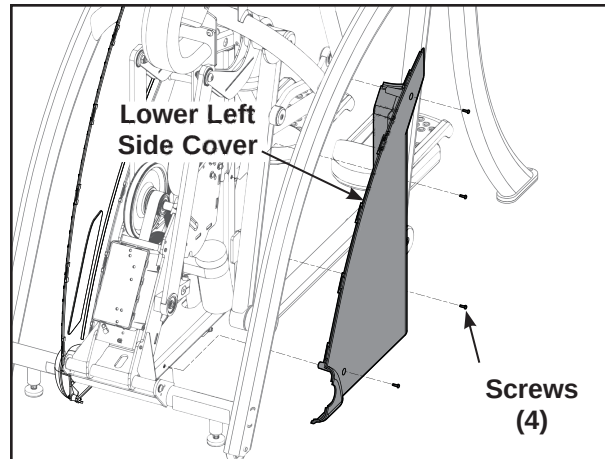


Figure 7

- B. Remove both lower side covers.

9. Remove plastic insert.

- A. Using a utility knife pry up the plug insert and pull out.

- B. Using a 5/16" nut driver or wrench remove the nut and washer from the two heart rate jacks as shown in figure 8.

NOTE: Hold heart rate wires to prevent them from twisting.

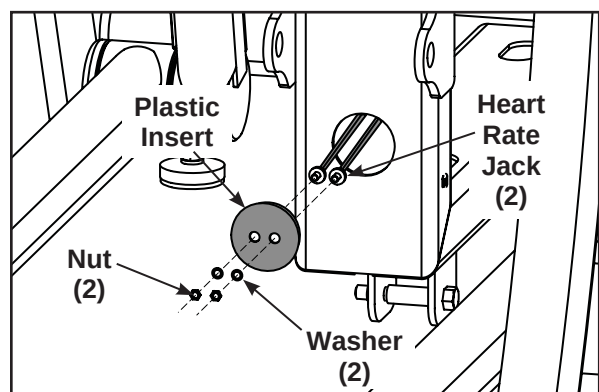


Figure 8

- C. Remove the plastic insert from the heart rate jacks.

10. Install new plastic insert.

- A. Install new plastic insert (A) on the two heart rate jacks as shown in Figure 8.
- B. Using a 5/16" nut driver or wrench attach the nut and washer (removed in step 9B) to each of the two heart rate jacks as shown in figure 8. **NOTE:** Hold heart rate wires to prevent them from twisting.
- C. Install by pushing on the plug insert until it snaps in place in the hole.

11. Attach the lower side covers.

- A. Hold the lower covers in place. See Figure 7.
- B. Using a Phillips head screwdriver, tighten the four screws securing each lower side cover.

12. Attach the upper side covers.

- A. Place the upper covers in position. See Figure 6.
- B. Using a Phillips head screwdriver, tighten the screw securing each upper side cover.

13. Attach the top cover.

- A. Place the upper left cover in position. See Figure 5.
- B. Using a Phillips head screwdriver, tighten the screw securing the top cover.

14. Attach the front cover.

- A. Place the front cover in position. See Figure 4.
- B. Using a Phillips head screwdriver, tighten the four screws securing the front cover.

15. Attach input handles.

- A. Position right handle vertically and align input handle opening with mainframe opening. See Figure 3.
- B. Insert pivot shaft into mainframe and input handle openings. See Figure 3.
- C. Position left input handle vertically and align input handle opening with mainframe opening. See Figure 3.

- D. Push pivot shaft through opening.

- E. Apply Loctite (B) to the two BHSCS (removed in step 4C) and into where they will be threaded.

- F. Using two 7/32" Allen wrenches, attach the two BHSCS/Loctite and two washers to the pivot shaft. See Figure 3. **NOTE:** Handle will wobble if not securely tightened.

- G. Attach the heart rate cables. See Figure 3.

16. Attach S-Links.

- A. Place the S-links in position on the handles. See Figure 2.
- B. Place a drop of Loctite (B) to the threads of each BHSCS removed in step 4A and another drop inside the shaft into where each BHSCS will be tightened.
- C. Install the spacer, end cap, washer and BHSCS/loctite as shown Figure 2.
- D. Using a 5/32" Allen wrench, tighten BHSCS securely.

17. Test the unit for proper operation.

- A. Connect the power cord into the power outlet.
- B. Operate the unit to verify proper operation.

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Arc Trainer® 425A A/V

Kit No. 425AK044

Installation Instructions

NOTE: This instruction sheet describes how to install the Cybex Personal Entertainment Monitor on the Arc Trainer 425A.

Tools Required

- 3 mm Allen wrench
- 5/32" Allen wrench
- 7/16" Open end wrench
- Phillips screwdriver
- 7/32" Allen wrench (2)
- Side cutter
- Utility knife
- Cloth

1. Read and understand all instructions thoroughly before installing this kit.

2. Verify kit contents shown in Figure 1.

- A. Console monitor mount (1), 425A-220
- B. Audio cable 1/4" to 3.5 mm 18" (1), 630A-102
- C. RJ-45 round cable (1), 630A-103
- D. Headphone adapter clamp (1), 630A-330
- E. Headphone jack mount bracket (1), 630A-331
- F. Coax and power cable I/O W/2.1 mm (1), 630A-104
- G. Allen wrench 3 mm (1), BK030210
- H. Adapter, 1/4 plug to 1/8 stereo jack (1), ES000001
- I. Self tapping screw 8-16 x .31 (2), HT552509
- J. Self tapping screw 8-16 x .75 (2), HT552515
- K. Strain relief bushing (1), PP740000
- L. A/V bottom membrane (1), SW-19621-4 (**NOTE:** for English Console only)
- M. Cybex monitor kit (1), EE000005 or EE000007
- N. Poster (1), 425A-513 (not shown)
- O. Warranty sheet (1), LT-20219 (not shown)
- P. Cable Tie (5), EW000028
- Q. Signal Isolator (1), 425A-490
- R. Loctite (1), YA000201 (not shown)

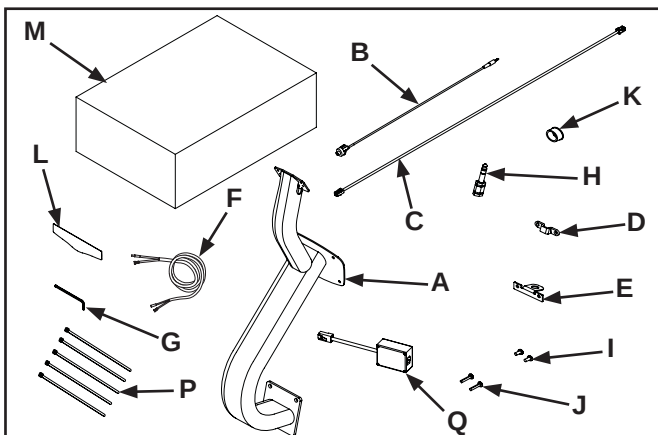


Figure 1

3. Verify the monitor kit contents shown in Figure 2.

- AA. Monitor (1), EE000005 or EE000007
- BB. Remote control (1), EM000000
- CC. Batteries, remote control, AAA size (2), N/A
- DD. Screws, mounting, M4 x 0.7 x 10 mm (4), HC692860
- EE. Washers, external lock, (4), HS047300
- FF. Washers, flat, M4 (4), HS097600
- GG. AC/DC adapter (1), ET300038
- HH. Power cord, 115 VAC 60 Hz, (Country specific cords supplied with product), (1), EW600000
- II. Personal Entertainment Monitor Manual (1), LT-20191

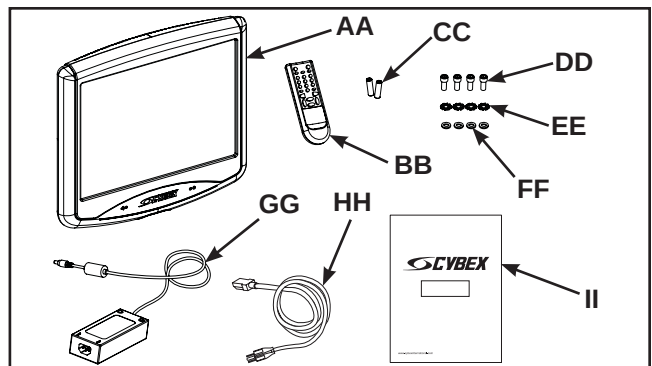


Figure 2

4. Elevate the unit and disconnect the power source.

- A. Elevate the unit to level 10 incline.
- B. While the unit is elevated, unplug the power cord from the power outlet.

! WARNING: Disconnect the power cord before continuing this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

NOTE: To protect paint place a cloth over upper frame before removing handles.

5. Remove the input handles.

- A. Using a 5/32" Allen wrench, remove the Button Head Socket Cap Screw (BHSCS), washer, end cap and spacer securing the S-link to the input handles. See Figure 3.



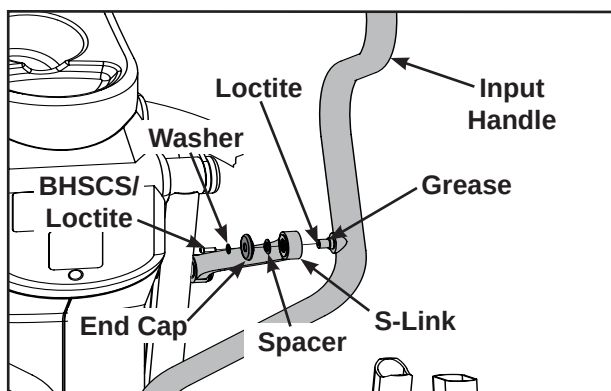


Figure 3

- B. Unplug the heart rate cables. See Figure 4.

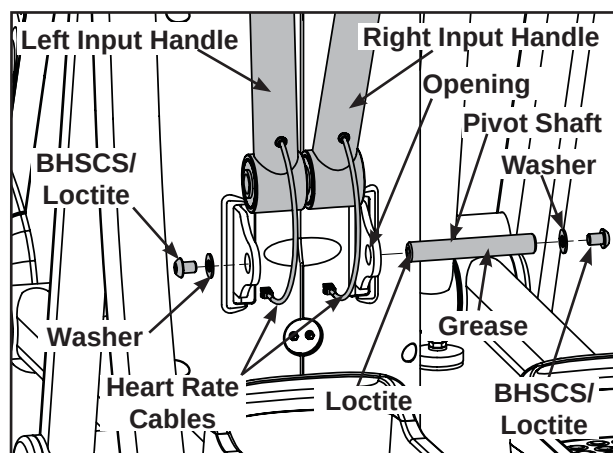


Figure 4

- C. Using two 7/32" Allen wrenches, remove the BHSCS and washer from the pivot shaft. See Figure 4.
- D. Slide the pivot shaft through main frame opening to remove input handles. See Figure 4.
- E. Set input handles aside (they will be reattached later).

6. Remove the front cover.

- A. Using a Phillips screwdriver, remove the four screws securing the front cover. See Figure 5.
- B. Remove front cover.

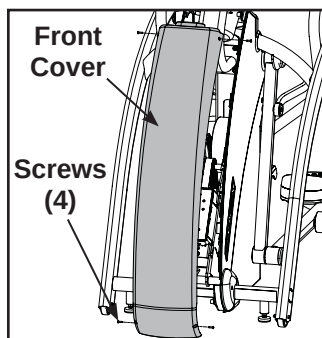


Figure 5

7. Remove top cover.

- A. Using a Phillips screwdriver, remove the screw securing the top cover. See Figure 6.

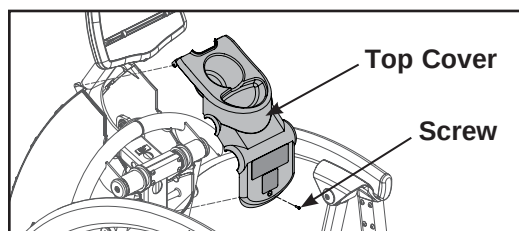


Figure 6

- B. Remove top cover.

8. Remove upper side covers.

- A. Using a Phillips screwdriver, remove the screw securing each of the upper side covers. See Figure 7.

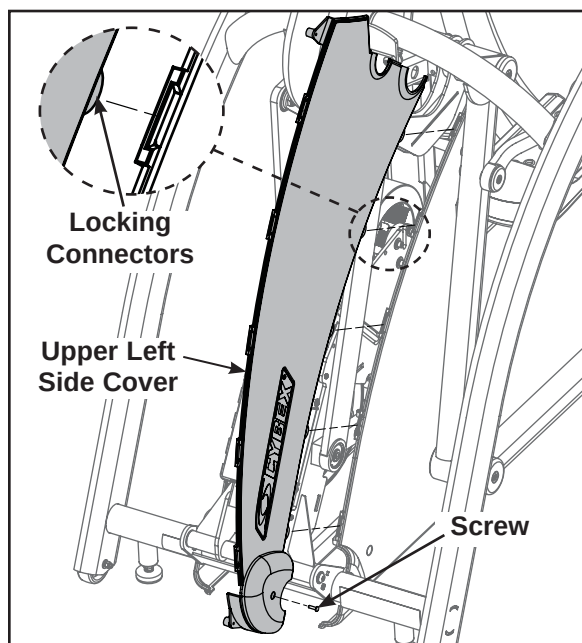


Figure 7

- B. Remove upper side covers.

9. Remove both lower side covers.

- A. Using a Phillips head screwdriver, remove the four screws securing each of the lower side covers. See Figure 8.

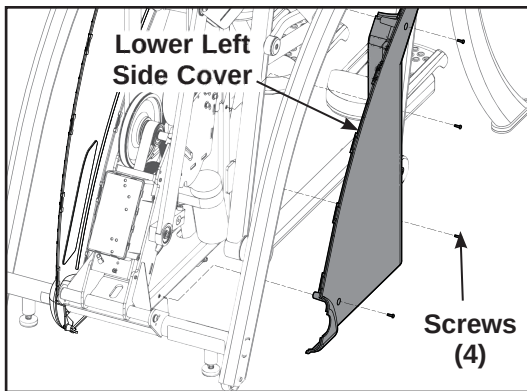


Figure 8

- B. Remove both lower side covers.

10. Remove the display console.

- A. Using a 5/32" Allen wrench, remove the four BHSCS with lock washers securing the display console to the console mount. See Figure 9.

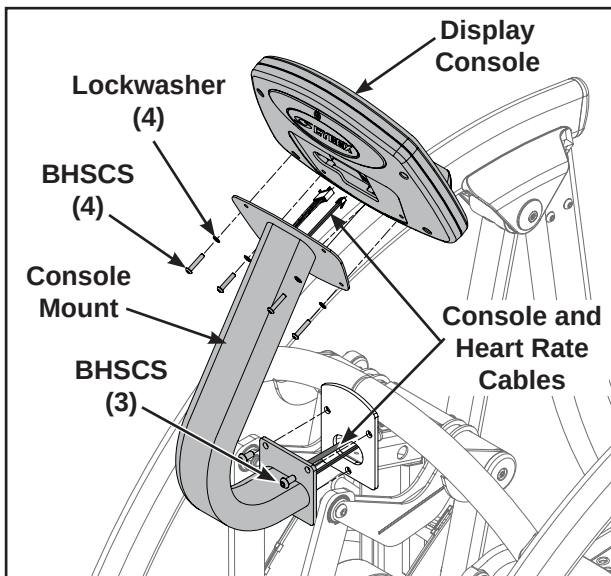


Figure 9

- B. Disconnect the console and heart rate cables from the display console. See Figure 9.
- C. Using a 7/32" Allen wrench remove the three BHSCS securing the console mount to the frame. See Figure 9.

11. Route the coax and power cable.

- A. Using a side cutter, cut the three cable ties. See Figure 10.

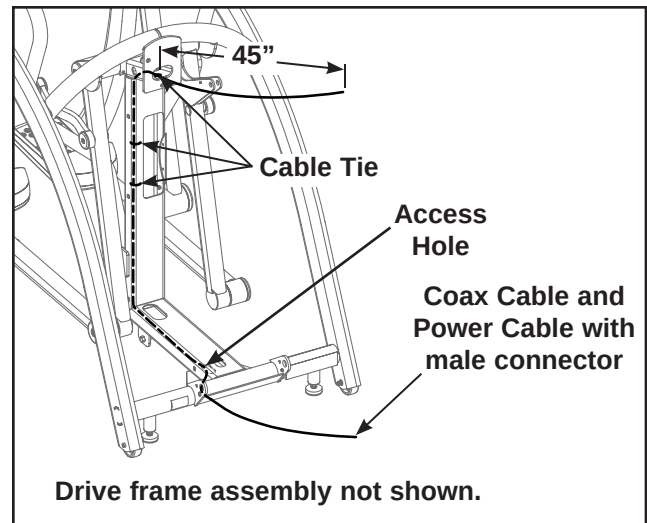


Figure 10

NOTE: The Power Cable (F) has a male and female connector at either end. Make sure the female end goes to the Monitor (AA) and the male end is at the base. See Figure 11.

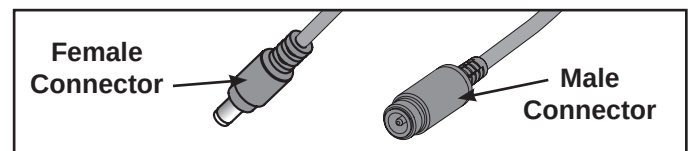


Figure 11

- B. Locate the coax and power cable (F).
 - C. Tape the ends of the coax and power cable together (making it easier to guide the cables down the frame).
 - D. Measure out 45" of cable from top of frame as shown in Figure 10.
 - E. Route the cable inside top of frame as shown in Figure 10.
 - F. Pull rest of cable through the access hole. See Figure 10.
 - G. Attach three cable ties (P) replacing the ones removed in step 11A. See Figure 10.
- NOTE:** Leave cable ties loose for cable adjustment, they will be tightened later.

12. Remove covers from console.

- A. Using a Phillips screwdriver, remove the one screw securing the console battery door cover, then remove the four screws securing the the rear console cover to the front console cover. See Figure 12.

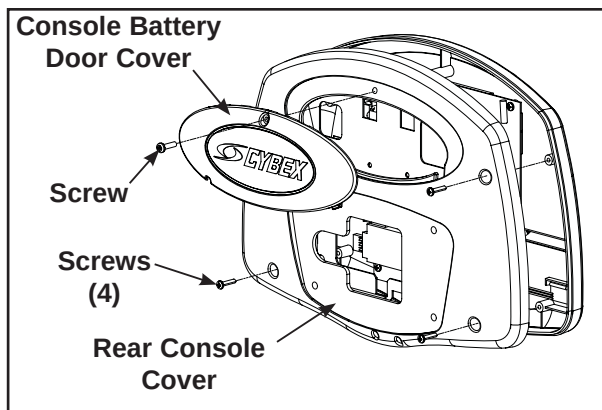


Figure 12

NOTE: Step 13 is for English units only, all other languages skip to step 14.

13. Replace bottom membrane with A/V membrane.

- A. Using a Phillips screwdriver, remove the three screws securing the main display PC board to the front console cover. See Figure 13.

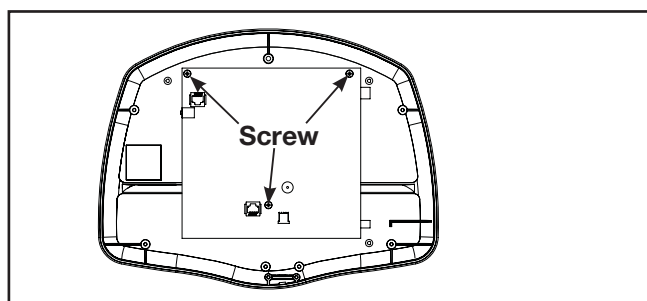


Figure 13

- B. Unplug the bottom membrane ribbon cable from the the main display PC board. See Figure 14.

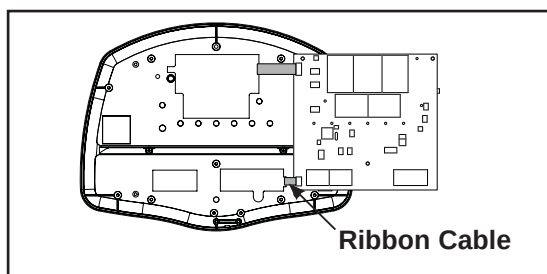


Figure 14

- C. Using a utility knife, pry off bottom membrane from the front console cover. See Figure 15.

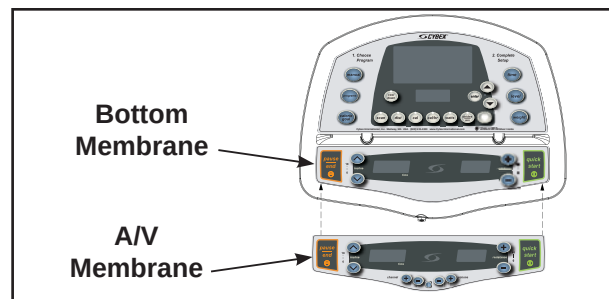


Figure 15

- D. Peel off backing from new A/V membrane and place on the front console cover. See Figure 15.
- E. Plug the A/V membrane ribbon cable into the main display PC board. See Figure 14.
- F. Using a Phillips screwdriver, reattach the three screws securing the main display PC board to the front console cover. See Figure 13.

14. Install audio cable, bracket, clamp and adapter to front cover.

- A. Using a Phillips screwdriver, attach the two screws (I) securing the headphone jack mount bracket (E). See Figure 16.

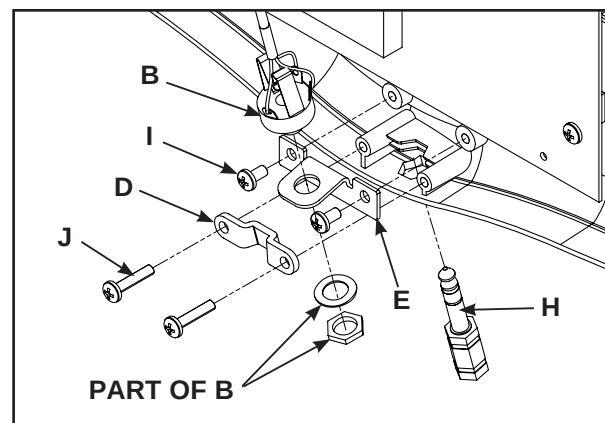


Figure 16

- B. Attach the audio cable (B) to the headphone jack mount bracket (E) securing it with the flat washer and nut (attached to cable). See Figure 16.
- C. Attach the adapter (H) securing it in place with the headphone adapter clamp (D) and two screws (J). See Figure 16.

15. Reattach the cover to the console.

- A. Using a Phillips screwdriver, reattach the four screws securing the rear console cover to the front console cover. See Figure 12.

16. Attach the RJ-45 and audio cables to the signal isolator.

- A. Attach the RJ-45 (C) and audio cables (B) to the signal isolator (Q). See Figure 17.

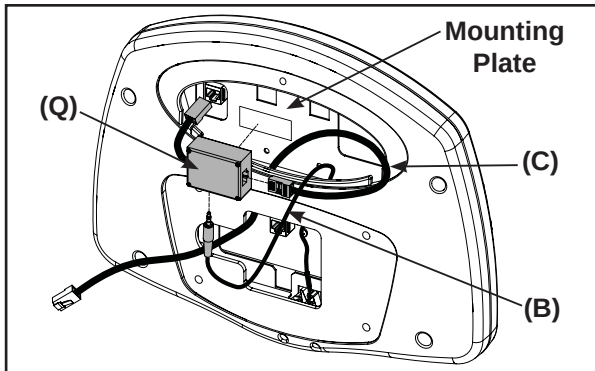


Figure 17

- B. Insert the RJ-45 (C) cable down through the lower rear console cover opening. See Figure 17.

17. Attach the signal isolator.

- A. Attach signal isolator (Q) cable to the PC board. See Figure 17.
- B. Peel off backing from tape and attach the signal isolator (Q) to the mounting plate. See Figure 17.

18. Reattach the battery door cover to the console.

- A. Using a Phillips screwdriver, reattach the one screw securing the console battery door cover to the console cover. See Figure 12.

19. Install cables in console mount.

- A. Locate the console mount (A).
- B. Locate the console, heart rate, coax and power cables on the mainframe assembly.
- C. Insert the cables into the bottom of the console mount (A) until the cable exit the top. See Figure 18.

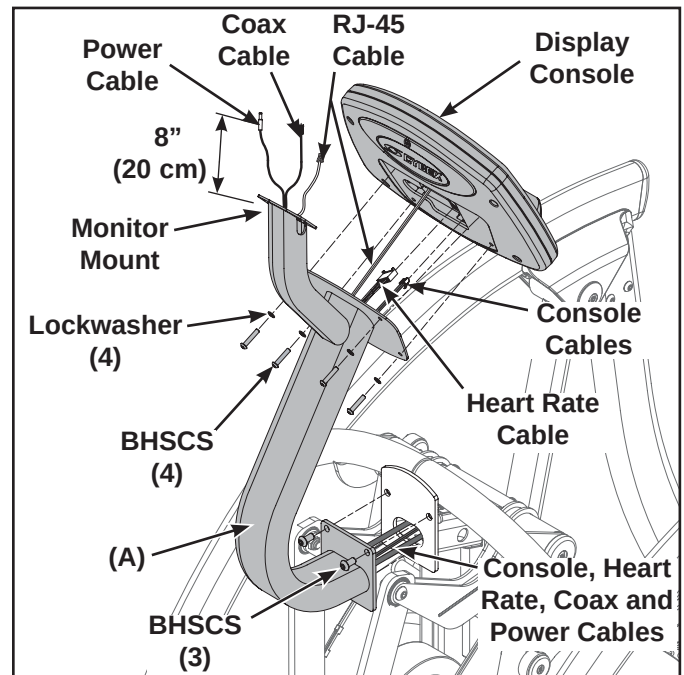


Figure 18

20. Attach the console mount.

- A. Position the console mount (A) on the main frame assembly and hand thread each of the three BHSCS. See Figure 18.
- B. Securely fasten the BHSCS with the 7/32" Allen wrench.

21. Insert the coax, power and RJ-45 cables.

- A. Route the coax and power cables up through the monitor mount until 8" (20 cm) of cable exit the top. See Figure 18.

NOTE: Exactly 8" (20 cm) of cable must exit the top of the monitor mount.

- B. With 8" of coax and power cables exiting the top of the console assembly, pull the extra coax and power cables out of the bottom of the main frame.
- C. Insert the RJ-45 cable that is attached to the display console up through the monitor mount. See Figure 18.

22. Attach the display console.

- A. Connect the console and heart rate cables exiting the top of the console mount to the console. See Figure 18.

- B.** Position the display console and hand thread each of the four BHSCS and lockwashers. See Figure 18.

NOTE: Verify cables are not pinched.

- C.** Using the 5/32" Allen wrench provided, tighten the four BHSCS securing the display console to the console mount.

23. Install monitor

- A.** Locate monitor (AA), four mounting screws (DD), four lock washers (EE) and four flat washers (FF).
- B.** Remove the back cover from monitor (AA) by pressing the bottom tabs of the cover in and rotating out. See Figure 19.

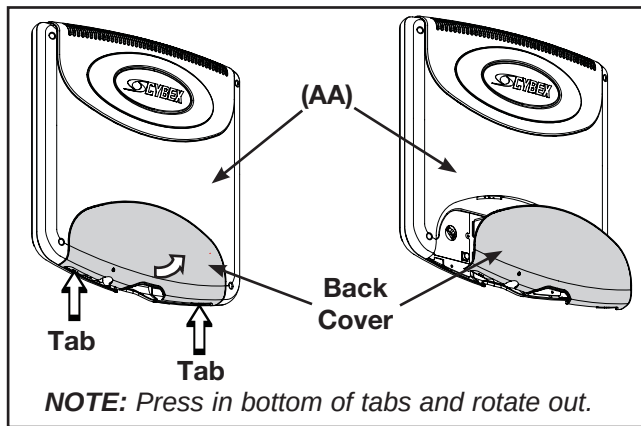


Figure 19

- C.** Insert the power cable end of (F) through hole on left side of monitor mount. See Figure 20.

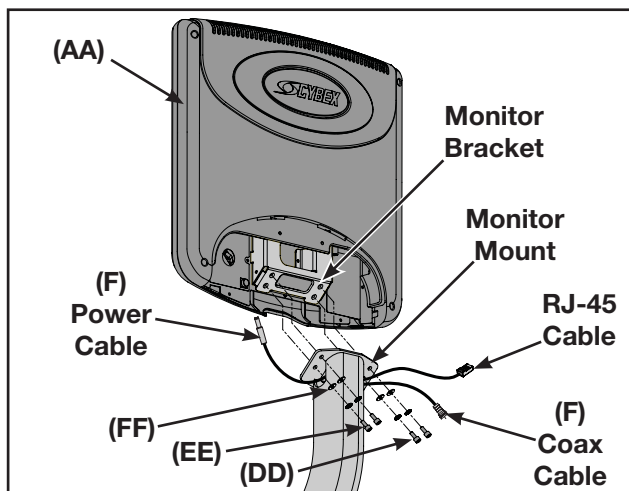


Figure 20

- D.** Insert RJ-45 cable and the coax end of (F) through hole on right side of monitor mount. See Figure 20.
- E.** Using a 3 mm Allen wrench secure the monitor bracket to the monitor mount using the four mounting screws (DD), four lock washers (EE) and four flat washers (FF). See Figure 20.
- F.** Insert the power cable, coax cable and RJ-45 cable into the monitor as shown in Figure 21. **NOTE:** Use of the CSAFE port is optional and requires a CSAFE cable and device.

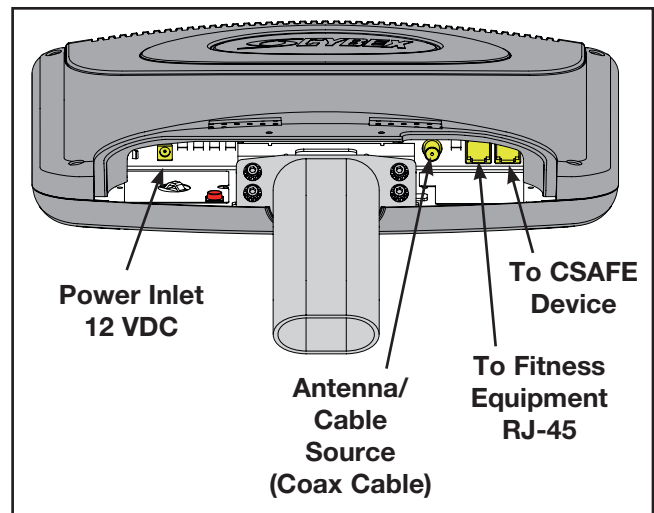


Figure 21

- G.** Secure the power inlet cable to the monitor plate using the cable tie (P). See Figure 22.

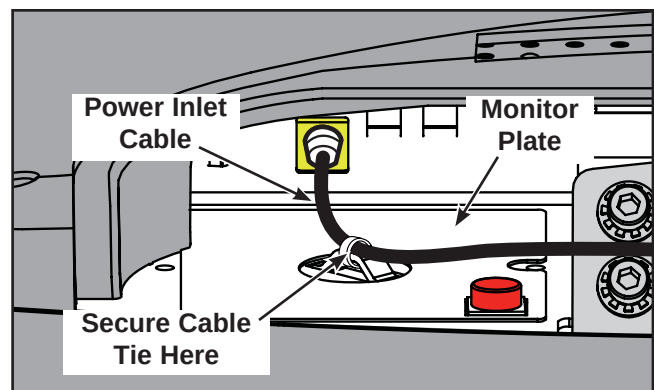


Figure 22

- H. Install the back cover to the monitor (AA). See Figure 23.

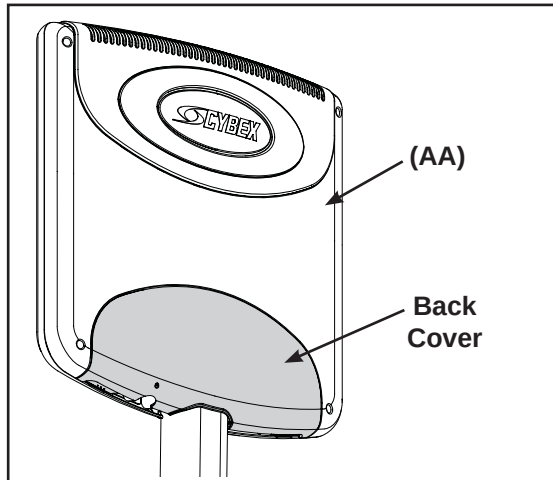


Figure 23

24. Tighten the three cable ties.

- A. Pull the loose coax and power cables through the access hole. See Figure 10.
- B. Tighten the three cable ties securely. See Figure 10.

25. Plug in AC/DC Adapter and coax cables.

- A. Locate the AC/DC adapter (GG) supplied with the monitor and plug into the power cable exiting the base of the Arc.
- B. Plug the power cord (HH) into the AC/DC adapter (GG). **NOTE:** Power cord (HH) varies by country.
- C. Thread the antenna/cable source cable (supplied at the site location) into the coax cable exiting the base of the Arc.

26. Set up monitor for first time use.

- A. Locate the Personal Entertainment Monitor Manual (LT-20191) and follow the set up procedure in Chapter 5.
- B. Plug the power cord (HH) into a wall outlet.
- C. Plug headphones (not supplied) into headphone jack located at base of console.
- D. Refer to Chapter 3 of the Personal Entertainment Monitor Manual (LT-20191) regarding use of the channel and volume keys located on the lower center of the Arc console. See Figure 24.

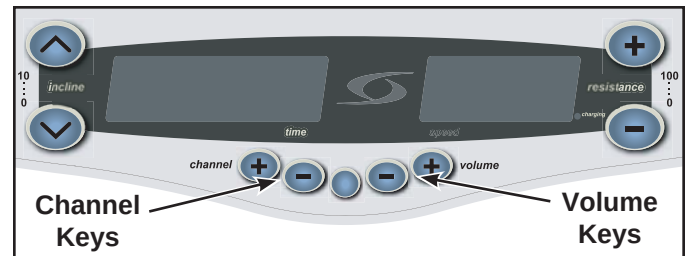


Figure 24

27. Attach the lower side covers.

- A. Hold the lower covers in place. See Figure 8.
- B. Using a Phillips screwdriver, tighten the four screws securing each lower side cover.

28. Attach the upper side covers.

- A. Place the upper covers in position. See Figure 7.
- B. Using a Phillips screwdriver, tighten the screw securing each upper side cover.

29. Attach the top cover.

- A. Place the upper left cover in position. See Figure 6.
- B. Using a Phillips screwdriver, tighten the screw securing the top cover.

30. Attach the front cover.

- A. Place the front cover in position. See Figure 5.
- B. Using a Phillips screwdriver, tighten the four screws securing the front cover.

31. Attach the handles.

- A. Position right handle vertically and align handle opening with mainframe opening. See Figure 4.
- B. Insert pivot shaft into mainframe and handle openings. See Figure 4.
- C. Position left handle vertically and align handle opening with mainframe opening.
- D. Push pivot shaft through opening.
- E. Apply loctite (R) to the two BHSCS (removed in step 5C) and into where they will be threaded.

- F. Using two 7/32" Allen wrenches, attach the two BHSCS/Loctite and two washers to the pivot shaft. See Figure 4. **NOTE:** Handle will wobble if not securely tightened.

- G. Attach the heart rate cables. See Figure 4.

32. Attach S-Links.

- A. Place the S-links in position on the handles. See Figure 3.
- B. Place a drop of Loctite (R) to the threads of each BHSCS removed in step 5A and another drop inside the shaft into where each BHSCS will tightened.
- C. Install the two nylon washers, two end caps and two BHSCS/loctite as shown Figure 3.
- D. Using a 5/32" Allen wrench, tighten BHSCS securely.

33. Test the unit for proper operation.

- A. Connect the power cord into the power outlet.
- B. Operate the unit to verify proper operation.

Arc Trainer® Shaft Replacement

Kit No. 425AK045

Installation Instructions

NOTE: This instruction sheet describes how to replace the pivot shaft on the 425A Arc Trainer.

Tools Required

- Phillips screwdriver
- 1/2" Open end wrench
- 5/32" Allen wrench
- 5/16" Allen wrench
- Hammer & punch
- Grease

1. Read and understand all instructions thoroughly before installing this kit.
2. Verify kit contents. See Figure 1.

- A. Shaft, (1), 425A-216
- B. BHSCS .250-20 X .75, (1), JC620415
- C. BHSCS .500-13 X 1.25, (1), JC780420
- D. Washer SAE .500, (1), HS387700
- E. Nylon locknut .250-20, (1), HN625200
- F. Loctite, (1), YA000201

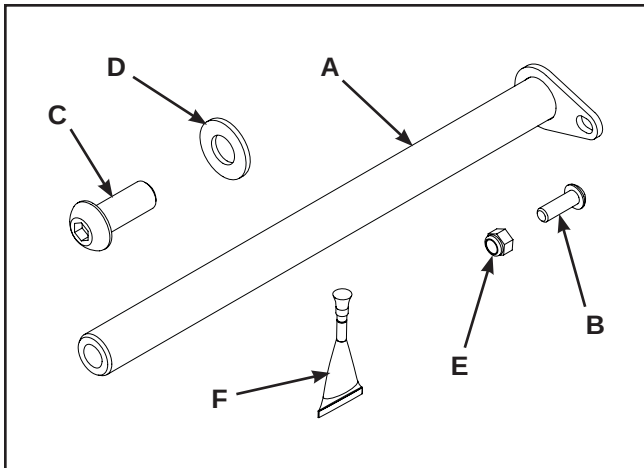


Figure 1

3. Disconnect the external power source.

- A. Unplug the power cord from the power outlet.

! WARNING: Disconnect the power cord before continuing this procedure. Keep wet items away from inside parts of the unit. Electrical shock could occur even if the unit is unplugged.

4. Remove the front cover.

- A. Using a Phillips screwdriver, remove the four screws securing the front cover. See Figure 2.

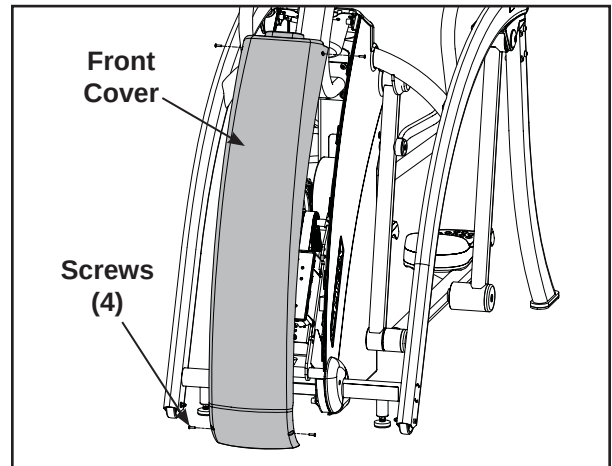


Figure 2

- B. Remove front cover.

5. Remove top cover.

- A. Using a Phillips screwdriver, remove the screw securing the top cover. See Figure 3.

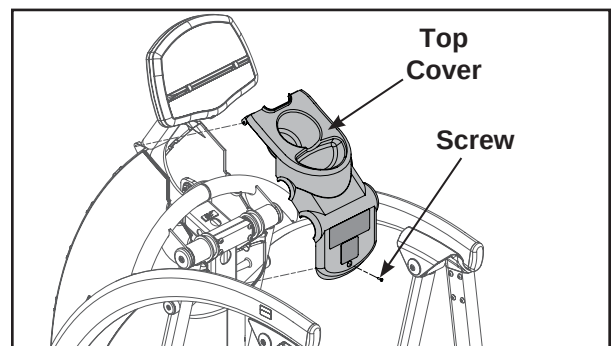


Figure 3

- B. Remove top cover.

6. Remove upper side covers.

- A. Using a Phillips screwdriver, remove the screw securing each of the upper side covers. See Figure 4.



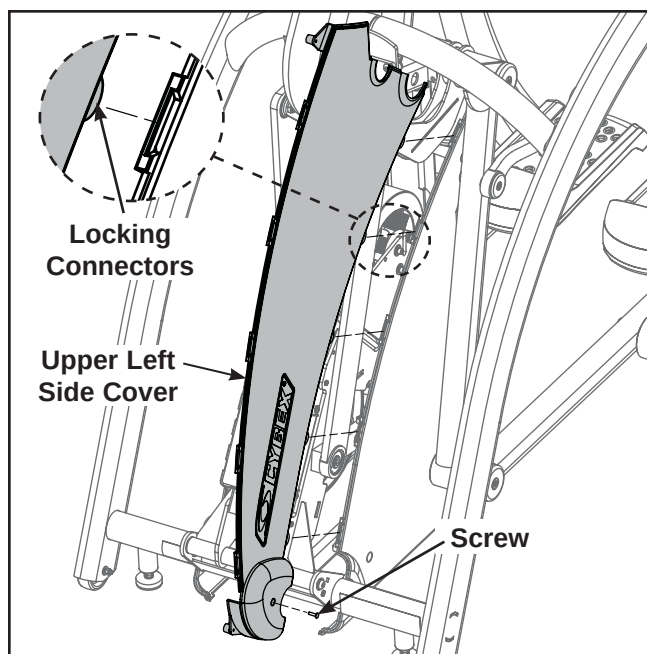


Figure 4

- B. Remove upper side covers.

7. Remove pivot shaft.

- A. Using a 5/16" Allen wrench, remove the BHSCS and washer. See Figure 5.

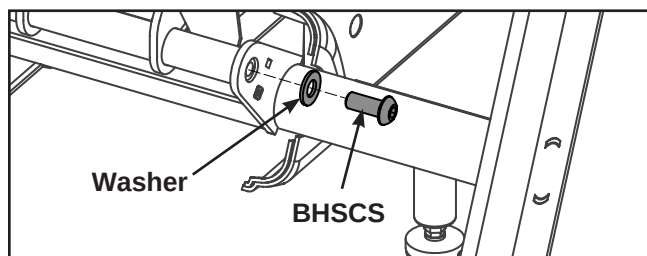


Figure 5

- B. Using a 5/32" Allen wrench and a 1/2" open end wrench, remove the BHSCS and nylon locknut. See Figure 6.

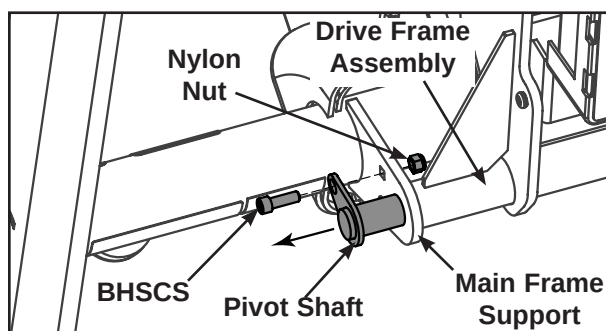


Figure 6

- C. Using a hammer and punch, tap out the pivot shaft.
- D. While supporting the drive frame assembly. Remove pivot shaft. See Figure 6.

8. Install new pivot shaft (A).

- A. Put grease on both ends of new pivot shaft (A).
- B. Align drive frame assembly with holes in the main frame support and insert new pivot shaft (A). See Figure 6.
- C. Using a 5/32" Allen wrench and a 1/2" open end wrench, attach the BHSCS (B) and nylon locknut (E), tighten securely. See Figure 6.
- D. Place a drop of loctite (F) on BHSCS (C) and another drop inside the pivot shaft where the BHSCS will be tightened.
- E. Using a 5/16" Allen wrench, attach the BHSCS (C) and washer (D) to the pivot shaft (A), tighten securely. See Figure 5.

9. Attach the upper side covers.

- A. Place the upper side covers in position. See Figure 4.
- B. Using a Phillips screwdriver, tighten the screw securing each upper side cover.

10. Attach the top cover.

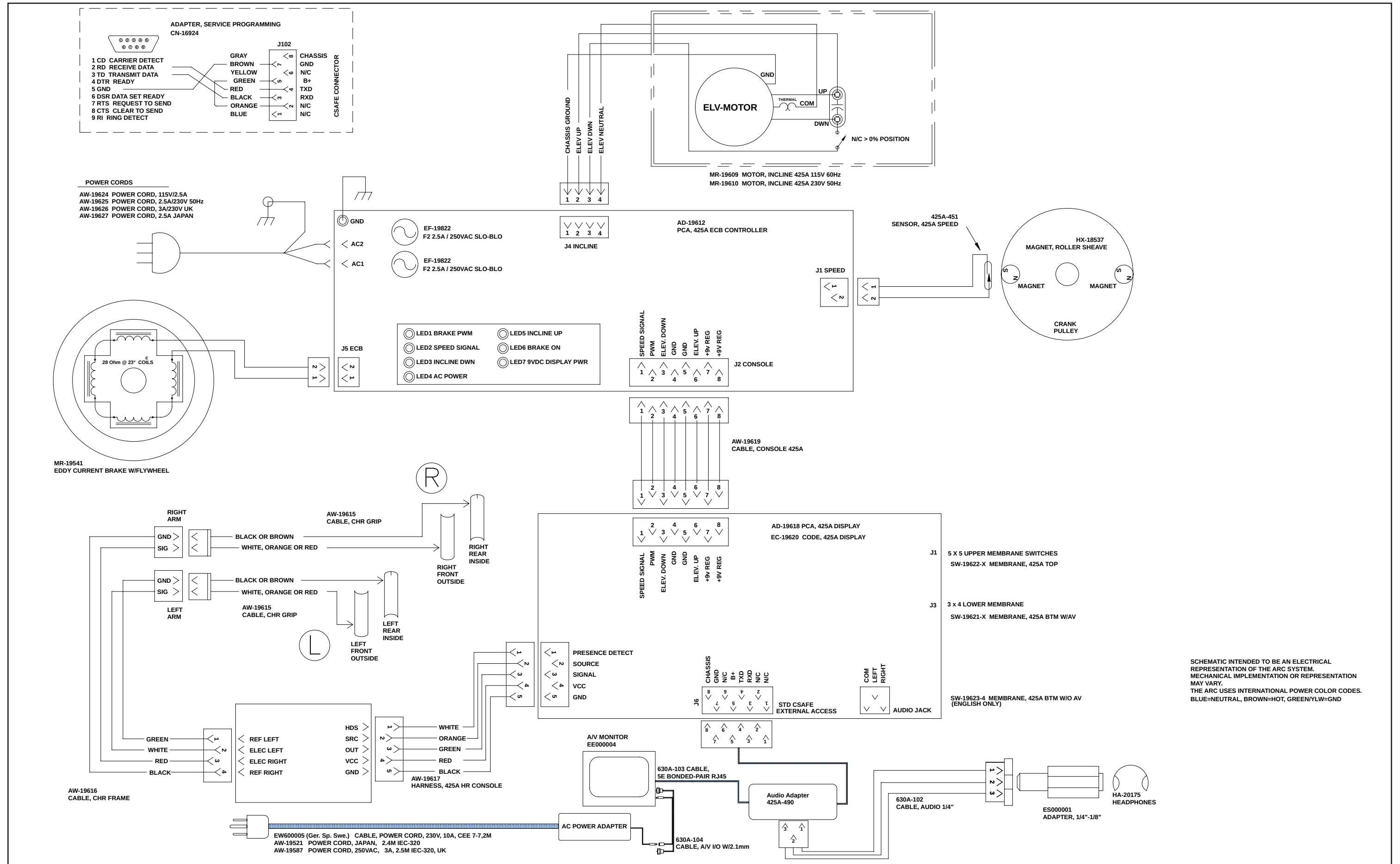
- A. Place the top cover in position. See Figure 3.
- B. Using a Phillips screwdriver, tighten the screw securing the top cover.

11. Attach the front cover.

- A. Place the front cover in position. See Figure 2.
- B. Using a Phillips screwdriver, tighten the four screws securing the front cover.

12. Connect power and test for proper operation.

- A. Plug power cord to the power outlet.
- B. Test unit for proper operation.





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